

Sequence Protocol

<110> metaGen Gesellschaft für Genomforschung mbH 422 Rec'd PCT/PTO 2 2 SEP 2000.

Human Nucleic Acid Sequences from Ovarian Tumor Tissue

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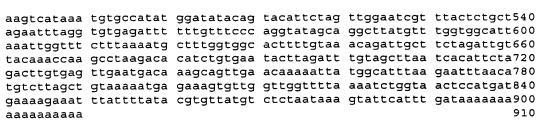
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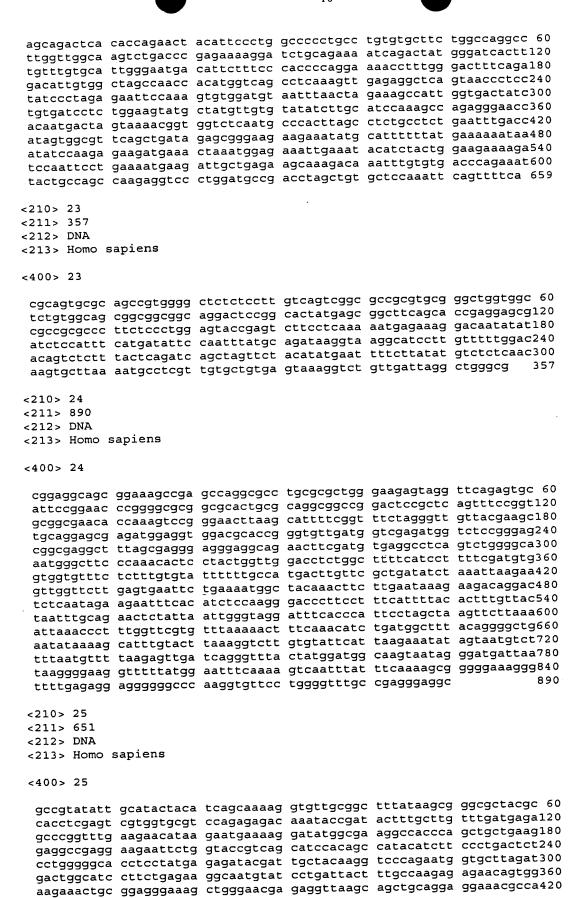
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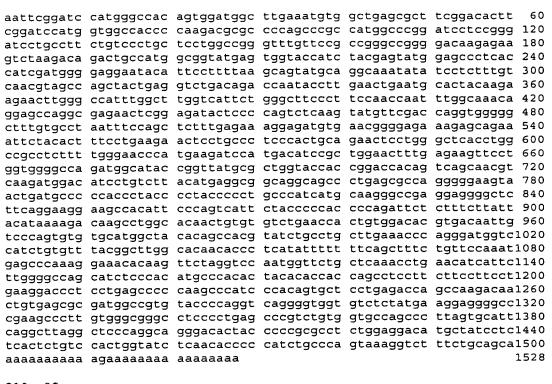
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<213> Homo sapiens
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<210> 46
<211> 623
<212> DNA
<213> Homo sapiens
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(223) Japane

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<211> 781

<212> DNA

<213> Homo sapiens

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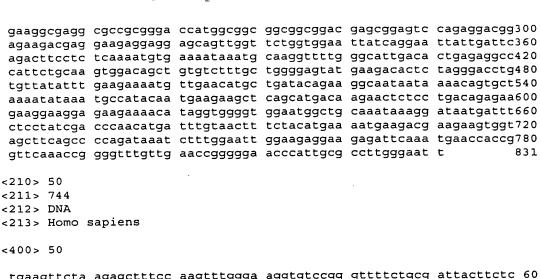
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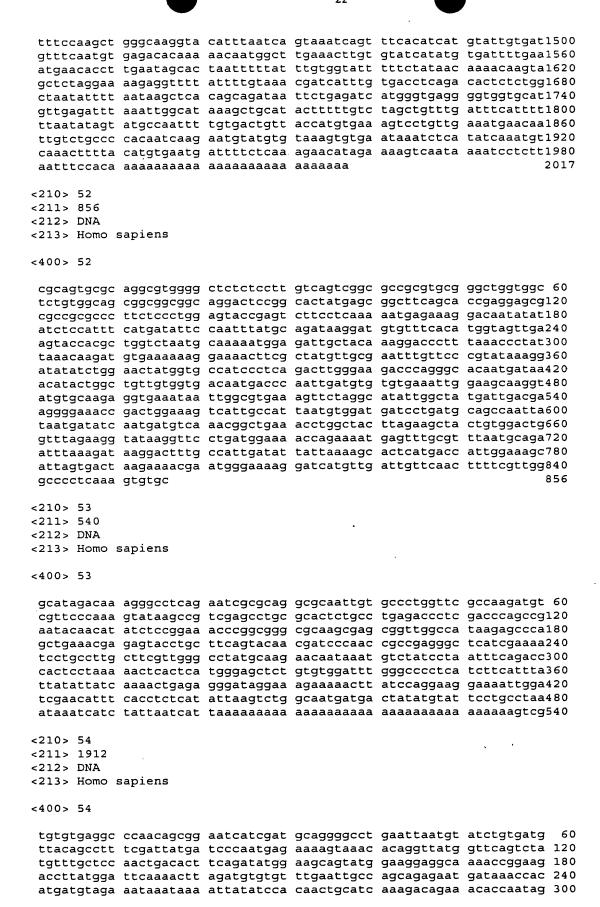


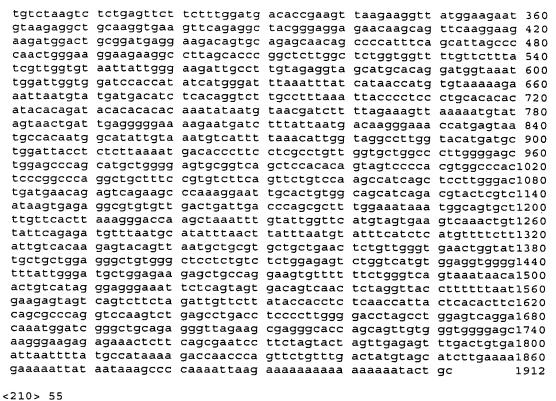
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<210> 51
<211> 2017
<212> DNA
<213> Homo sapiens
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<400> 51

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<210> 55

<212> DNA

<213> Homo sapiens

<400> 55

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<400> 56

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<210> 57 <211> 2188 <212> DNA <213> Homo sapiens

<400> 57

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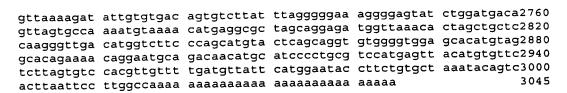
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<213> Homo sapiens

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<213> Homo sapiens

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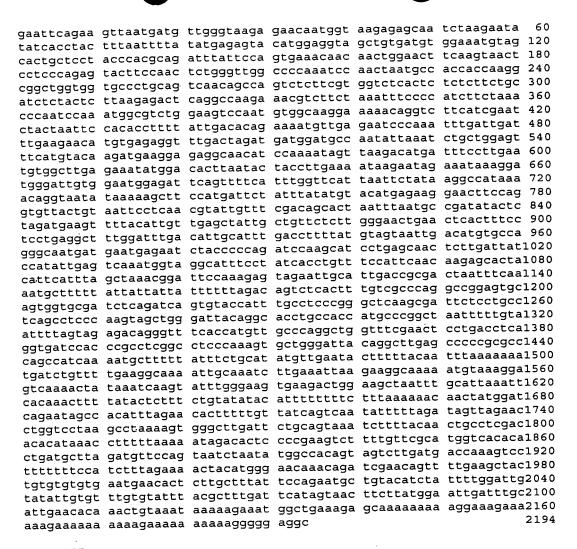
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Lys	Lys 50	Ser	Leu	Asp	Phe	Val 55	Phe	Tyr	Lys	Asn	Ser 60	Thr	Phe	Pro	Ile
Lys 65	Ser	Leu	Val	Ile	Lys 70	Ile	Ser	Thr	Leu	Pro 75	Lys	Cys	Asp	Ser	Thr 80
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His	Arg	Asn	His 20	Thr	Lys	Trp	Pro	Asp 25	Thr	Tyr	Phe	Thr	Glu 30	Gln	Phe
Lys	Tyr	Tyr 35	Thr	Leu	Ala	Lys	Ser 40	Thr	Tyr	Ser	Thr	His 45	Pro	Gly	Glu
Gly	Gly 50	Glu	Lys	Thr	His	Thr 55	Tyr.	Lys	Thr	Thr	Ser 60	Leu	Asp	Thr	Met
Cys 65	Leu	Pro	Thr	Ile	Ser 70	Ser	Leu	Asn	Asn	Phe 75	His	Gln	Leu	Arg	Cys 80
Leu	Val								•						
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Trp	Gln	Val	Asn 20	Ala	Asp	Tyr	Ser	Leu 25	Ala	Phe	Pro	Leu	Tyr 30	Leu	Cys
Lys	Glu	Gly 35	Tyr	Thr	Glu	Leu	Ile 40	Leu	Phe	Gln	Ala	Tyr 45	Asn	Phe	Lys
Phe	Tyr 50	His	Leu	Asn	Ser	Ser 55	Thr	Phe	Ala	Ala	Glu 60	Glu	Trp	Asn	Gln
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Gln	Trp	Thr	Gly	Arg 325	His	Asp	Ala	Phe	Glu 330	Ile	Leu	Val	Glu	Leu 335	Leu
Gln	Ala	Leu	Val 340	Leu	Cys	Leu	Asp	Gly 345	Ile	Asn	Ser	Asp	Thr 350	Asn	Ile
Arg	Trp	Asn 355	Asn	Tyr	Ile	Ala	Gly 360	Arg	Ala	Phe	Val	Leu 365	Cys	Ser	Ala
Val	Ser 370	Asp	Phe	Asp	Phe	Ile 375	Val	Thr	Ile	Val	Val 380	Leu	Lys	Asn	Val
Leu 385	Ser	Phe	Thr	Arg	Ala 390	Phe	Gly	Lys	Asn	Leu 395	Gln	Gly	Gln	Thr	Ser 400
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Asn	Leu	Ala	Thr 20	Lys	Leu	Asp	Ile	Gln 25	Met	Lys	Leu	Pro	Gly 30	Lys	Phe
Arg	Arg	Ala 35	His	Gln	Gly	Asn	Leu 40	Glu	Ser	Gln	Leu	Thr 45	Ser	Glu	Ser
Tyr	Tyr 50	Lys	Glu	Thr	Leu	Ser 55	Val	Pro	Thr	Val	Glu 60	His	Ile	Ile	Gln
Glu 65	Leu	Lys	Asp	Ile	Phe 70	Ser	Glu	Gln	His	Leu 75	Lys	Ala	Leu	Lys	Cys 80
Leu	Ser	Leu	Val	Pro 85	Ser	Val	Met	Gly	Gln 90	Leu	Lys	Phe	Asn	Thr 95	Ser
Glu	Glu	His	His 100	Ala	Asp	Met	Tyr	Arg 105	Ser	Asp	Leu	Pro	Asn 110	Pro	Asp
Thr	Leu	Ser 115	Ala	Glu	Leu	His	Cys 120	Trp	Arg	Ile	Lys	Trp 125	Lys	His	Arg
Gly	Lys 130	Asp	Ile	Glu	Leu	Pro 135	Ser	Thr	Ile	Tyr	Glu 140	Ala	Leu	His	Leu
Pro 145	Asp	Ile	Lys	Phe	Phe 150	Pro	Asn	Val	Tyr	Ala 155	Leu	Leu	Lys	Val	Leu 160
Cys	Ile	Leu	Pro	Val 165	Met	Lys	Val	Glu	Asn 170	Glu	Arg	Tyr	Glu	Asn 175	Gly

Arg Lys Arg Leu Lys Ala Tyr Leu Arg Asn Thr Leu Thr Asp Gln Arg 185 190 Ser Ser Asn Leu Ala Leu Leu Ile Asn Asn Phe Asp Ile Lys His Asp 195 200 205 Leu Asp Leu Met Val Asp Thr Tyr Ile Lys Leu Tyr Thr Ser Lys Ser 210 215 220 Glu Leu Pro Thr Asp Asn Ser Glu Thr Val Glu Asn Thr 230 <210> 135 <211> 89 <212> PRT <213> Homo sapiens <400> 135

Arg Ile Arg Ile Asn Gly Ser Leu Cys Pro Gln Thr Lys Asn Asn Leu 10 Tyr Phe His Ile Val Glu Leu Ser Ile Ser Gly Ala Ser Val Gly 20 25 Trp Tyr Arg Gly Met Gly Glu Ser Leu Pro Ala Arg Gly Ile Glu 35 40 Gln Gly Leu Leu Cys Leu Tyr Phe Tyr Lys Glu Ile Leu Pro Leu Phe 55 60 Leu Val Asn Lys Leu Arg Gly Thr Asp Val Gly Leu Glu Gln Gly Leu 65 75 Ser Gly Gly Glu Gly Ser Trp Thr Ala 85

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<211> 82

<212> PRT

<213> Homo sapiens

<400> 136

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Gln Asp

<210> 137

<211> 71

<212> PRT

<213> Homo sapiens

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Lys Lys Gln His Thr Arg Lys Ala Glu Leu Arg Asn Ala Asp Val Tyr 50 60

Gly Lys Lys Glu Gln Lys Met

<210> 138

<211> 67

<212> PRT

<213> Homo sapiens

<400> 138

Ser Ser Ala Gln Arg Lys Tyr Phe Asn Leu Pro Val Glu Ile Leu Val 1 5 10 15

Met Glu Arg Cys Gln Thr Val Leu Asn Gly Arg Thr Ser Lys Ser Glu 20 25 30

Ala Thr Val Pro Thr Thr Arg Gly Leu Leu Tyr Cys Ser Thr Phe Ser

Ala Leu Tyr Phe Leu Ala Glu Ala Ser Pro Trp Ser Ala Met Tyr Lys 50 60

Leu Gly Tyr

65

<210> 139

<211> 49 <212> PRT

<213> Homo sapiens

<400> 139

Arg Ala Glu Lys Val Glu Gln Tyr Lys Ser Pro Arg Val Val Gly Thr 1 5 . 10 15

Val Ala Ser Leu Leu Leu Val Leu Pro Phe Lys Thr Val Trp His Leu
20 25 30

Ser Met Thr Arg Ile Ser Thr Gly Arg Leu Lys Tyr Phe Leu Cys Ala

Glu

<210> 140

<211> 132

<212> PRT

<213> Homo sapiens

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Ser	Asp	Arg 35	Asp	Gly	Val	Pro	Val 40	Ile	Lys	Val	Ala	Asn 45	Asp	Asn	Ala
Pro	Glu 50	His	Ala	Leu	Arg	Pro 55	Gly	Phe	Leu	Ser	Thr 60	Phe	Ala	Leu	Ala
Thr 65	Asp	Gln	Gly	Ser	Lys 70	Leu	Gly	Leu	Ser	Lys 75	Asn	Lys	Ser	Ile	Ile 80
Cys	Tyr	Tyr	Asn	Thr 85	Tyr	Gln	Val	Val	Gln 90	Phe	Asn	Arg	Leu	Pro 95	Leu
Val	Val	Ser	Phe 100	Ile	Ala	Ser	Ser	Ser 105	Ala	Asn	Thr	Gly	Leu 110	Ile	Val
Ser	Leu	Glu 115	Lys	Glu	Leu	Ala	Pro 120	Leu	Phe	Glu	Glu	Leu 125	Arg	Gln	Val
Val	Glu 130	Val	Ser												

<210> 141 <211> 126 <212> PRT

<213> Homo sapiens

<400> 141

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V	al	Ala	Arg	Ala 20	Lys	Val	Asp	Lys	Lys 25	Pro	Gly	Arg	Lys	Ala 30	Cys	Ser
G	ly	Ala	Leu 35	Ser	Phe	Ala	Thr	Leu 40	Ile	Thr	Gly	Thr	Pro 45	Ser	Leu	Ser
A	sp	Thr 50	Thr	Met	Ala	Trp	Ser 55	Pro	Ser	Thr	Leu	Gly 60	Asn	Phe	Leu	Tyr
-	ys 65	Asn	Arg	Phe	Arg	Ser 70	Ser	Ala	Met	Met	Asn 75	Pro	Leu	Leu	Ser	Gln 80
A	sp	Gln	Ser	Pro	Arg 85	Leu	Gly	Phe	Leu	Gly 90	Cys	Leu	Val	Leu	Ser 95	Ala
Va	al	Thr	Ser	Gly 100	Thr	Ala	Leu	Lys	Thr 105	Gly	Ser	Ser	Ser	Ser 110	His	Arg
H	is	Met	Ile 115	His	-	Leu		•		Pro	-	Ser	Thr 125	Phe		

<210> 142

<211> 142 <212> PRT <213> Homo sapiens <400> 142 Gly Trp Asp Leu Asn Met Ala Ala Val Val Lys Arg Ala 10 15 Gly Gly Ala Ala Val Leu Thr Ala Leu Lys Arg Arg Asn Arg Arg 25 Ile Leu Ala Gly Ala Thr Ala Asn Lys Ala Ser His Asn Arg Thr Gly 40 35 45 Glu Gly Glu Glu Glu Gln Ser His Ser Ser Pro Lys Pro Ala Arg Leu Pro Glu Leu Glu Tyr Ile Pro Arg Lys Arg Gly Lys Asn Pro Leu Ser 75 80 70 Gly Trp Gly Ala Ile Gly Phe Cys Pro Met Lys Ala Val Leu Ala Pro 95 90 85 Glu Phe Ile Leu Thr Lys Arg Val Asp Lys Asp Arg Val Ile Leu Leu 100 105 110 Gln Asn Met Arg Leu Ser Asn Thr Gly Gln Met Lys Ala Arg Lys 115 120 Glu Ser Gln Phe Arg Ala Ser Ser Gln Ser Ala Pro Ser Pro Tyr Arg 140 135 Gln Asp Val Gly Ser Gly Val Thr 150 145 <210> 143 <211> 114 <212> PRT <213> Homo sapiens <400> 143 Pro Gln Val Cys Thr Pro Gly Glu Gly Arg Ser Ala Asp Pro Thr Ser 1 5 10 15 Gly Trp Trp Ser Asp Ala Leu Glu Glu Ala Leu Asn Leu Leu Ser Tyr 20 25 30 Phe Val Leu Met Phe Cys Arg Ala Ile Cys Phe Thr Pro Asp Asn Arg 45 35 40 Ser Arg Val Arg Lys Ile Pro Thr Ser Leu Met Arg Arg Arg Leu Ser 50 55 60 Gln Ala Gln Ala Ser Pro Thr Ala Phe Met Gly Phe Gly Lys Pro Met 65 70 80 Leu Phe Leu Gly Met Tyr Ser Ser Ser Gly Asp Arg Gly Ser 95 85 90 Ser Gly Glu Leu Trp Leu Cys Arg Ala Arg Val Gly Ser Ser Leu Pro

105

110

100

Leu Leu

<210> 144

<211> 267

<212> PRT

<213> Homo sapiens

<400> 144

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Lys	Glu	ı Ile	Leu 20	-	Lys	Ser	Glu	Lys 25	-	Thr	Asn	Ser	Lys 30	Val	Lys
Pro	Lys	Gly 35	-	Val	Arg	Trp	Thr 40	Gly	Ser	Arg	Thr	Arg	Gly	Arg	Trp
Lys	Tyr 50		Ser	Asn	Asp	Glu 55	Ser	Glu	Gly	Ser	Gly 60	Ser	Glu	Lys	Ser
Ser 65	Ala	Ala	Ser	Glu	Glu 70	Glu	Glu	Glu	Lys	Glu 75	Ser	Glu	Glu	Ala	Ile 80
Leu	Ala	Asp	Asp	Asp 85	Glu	Pro	Cys	Lys	Lys 90	Cys	Gly	Leu	Pro	Asn 95	His
Pro	Glu	Leu	Ile 100	Leu	Leu	Cys	Asp	Ser 105	Cys	Asp	Ser	Gly	Tyr 110	His	Thr
Ala	Cys	Leu 115	Arg	Pro	Pro	Leu	Met 120	Ile	Ile	Pro	Asp	Gly 125	Glu	Trp	Phe
Cys	Pro 130	Pro	Cys	Gln	His	Lys 135	Leu	Leu	Cys	Glu	Lys 140	Leu	Glu	Glu	Gln
Leu 145	Gln	Asp	Leu	Asp	Val 150	Ala	Leu	Lys	Lys	Lys 155	Glu	Arg	Ala	Glu	Arg 160
Arg	Lys	Glu	Arg	Leu 165	Val	Tyr	Val	Gly	Ile 170	Ser	Ile	Glu	Asn	Ile 175	Ile
Pro	Pro	Gln	Glu 180	Pro	Asp	Phe	Ser	Glu 185	Asp	Gln	Glu	Glu	Lys 190	Lys	Lys
Asp	Ser	Lys 195	Lys	Ser	Lys	Ala	Asn 200	Leu	Leu	Glu	Arg	Arg 205	Ser	Thr	Arg
Thr	Arg 210	Lys	Cys	Ile	Ser	Tyr 215	Arg	Phe	Asp	Glu	Phe 220	Asp	Glu	Ala	Ile
Asp 225	Glu	Ala	Ile	Glu	Asp 230	Asp	Ile	Lys	Glu	Ala 235	Asp	Gly	Gly	Gly	Val 240
Gly	Arg	Gly	Lys	Asp 245	Ile	Ser	Thr	Ile	Thr 250	Gly	His	Arg	Gly	Lys 255	Asp
Ile	Ser	Thr	Ile 260	Leu	Asp	Glu	Lys	Ile 265	Ile	Thr					

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<212> PRT

<213> Homo sapiens

<400> 145

Ser · 1	Ser	Glu	Lys	Ser 5	Gly	Ser	Cys	Gly	Gly 10	Met	Met	Phe	Ser	Ile 15	Leu
Ile	Pro	Thr	Tyr 20	Thr	Lys	Arg	Ser	Phe 25	Leu	Arg	Ser	Ala	Arg 30	Ser	Phe
Phe	Phe	Lys 35	Ala	Thr	Ser	Lys	Ser 40	Cys	Asn	Cys	Ser	Ser 45	Asn	Phe	Ser
Gln	Ser 50	Ser	Leu	Cys	Trp	Gln 55	Gly	Gly	Gln	Asn	His 60	Ser	Pro	Ser	Gly
Met 65	Ile	Ile	Arg	Gly	Gly 70	Arg	Arg	Gln	Ala	Val 75	Trp	Tyr	Pro	Leu	Ser 80
Gln	Glu	Ser	His	Arg 85	Arg	Ile	Ser	Ser	Gly 90	Trp	Phe	Gly	Arg	Pro 95	His
Phe	Leu	His	Gly 100	Ser	Ser	Ser	Ser	Ala 105	Arg	Met	Ala	Ser	Ser 110	Leu	Ser
Phe	Ser	Ser 115	Ser	Ser	Ser	Glu	Ala 120	Ala	Asp	Asp	Phe	Ser 125	Leu	Pro	Asp
Pro	Ser 130	Leu	Ser	Ser	Leu	Leu 135	Glu	Tyr	Phe	His	Leu 140	Pro	Arg	Val	Arg
Glu 145	Pro	Val	His	Arg	Thr 150	Leu	Pro	Leu	Gly	Phe 155	Thr	Leu	Glu	Phe	Val 160
Ser	Phe	Ser	Asp	Phe 165	Phe	Lys	Ile	Ser	Phe 170	Leu	Ser	Val	Phe	Cys 175	Lys
Ala	Val	Asp	Ser 180	Ser	Ser	Thr	Ser	Ser 185			•		X.		

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<210> 147

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<210> 148

<211> 134

<212> PRT

<213> Homo sapiens

<400> 148

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Ser	Pro	Ser	Ile 20	Ile	Asn	Glu	Asp	Val 25	Ile	Ile	Asn	Gly	His 30	Ser	His
G1	7	7.00	N c m	Pro	Dhe	Δla	Glu	Tvr	Met	Trp	Met	Glu	Asn	Glu	Glu

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		35					40					45			
Glu	Phe 50	Asn	Arg	Gln	Ile	Glu 55	Glu	Glu	Leu	Trp	Glu 60	Glu	Glu	Phe	Ile
Glu . 65	Arg	Cys	Phe	Gln	Glu 70	Met	Leu	Glu	Glu	Glu 75	Glu	Glu	His	Glu	Trp 80
Phe	Ile	Pro	Ala	Arg 85	Asp	Leu	Pro	Gln	Thr 90	Met	Asp	Gln	Ile	Gln 95	Asp
Gln	Phe	Asn	Asp 100	Leu	Val	Ile	Ser	Asp 105	Gly	Ser	Ser	Leu	Glu 110	Asp	Leu
Val	Val	Lys 115	Ser	Asn	Leu	Asn	Pro 120	Asn	Ala	Lys	Glu	Phe 125	Val	Pro	Gly
Val	Lys 130	Tyr	Gly	Asn	Ile										
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<400>	149														
His 1		Asp	Lys	Arg 5	Ala	Phe	Thr	Ile	Lys 10	Ser	Ser	Asn	Thr	Ala 15	Phe
Thr	Val	Trp	Lys 20	Leu	Cys	Tyr	Ile	His 25	Gln	Lys	Arg	Ala	Pro 30	Ser	Thr
Gln	Ile	Phe 35	Pro	Tyr	Phe	Thr	Pro 40	Gly	Thr	Asn	Ser	Phe 45	Ala	Phe	Gly
Phe	Arg 50	Leu	Leu	Leu	Thr	Thr 55	Arg	Ser	Ser	Arg	Glu 60	Glu	Pro	Ser	Leu
Ile 65	Thr	Arg	Ser	Leu	Asn 70	Trp	Ser	Trp	Ile	Trp 75	Ser	Ile	Val	Cys	Gly 80
Arg	Ser	Arg	Ala	Gly 85	Ile	Asn	His	Ser	Cys 90	Ser	Ser	Ser	Ser	Ser 95	Ser
Ile	Ser	Trp	Lys 100	Gln	Arg	Ser	Ile	Asn 105	Ser	Ser	Ser	His	Asn 110	Ser	Ser
Ser	Ile	Cys 115	Leu	Leu	Asn	Ser	Ser 120	Ser	Phe	Ser	Ile	His 125	Met	Tyr	Ser
Ala	Asn 130	Gly	Leu	Ser	Ser	Ser 135					•				
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Leu 1	Val	Ser	Gly	Ala 5	Asn	Gln	Cys	Gly	Ser 10	Cys	Asn	Ser	Lys	Ser 15	Phe

Leu Thr Lys Ala Trp Tyr Tyr Arg Val Gly Phe Arg Phe Phe Arg Gly 20 25 Gly Leu Phe Asp Phe Asp Phe Phe Phe Phe Tyr Val Ile Phe Gly Lys 40 45 Thr His Ser Glu Leu Tyr Leu Val Ser Thr 55 <210> 151 <211> 61 <212> PRT <213> Homo sapiens <400> 151 Phe Phe Val Leu Lys Ser Leu Leu Val Gly Ala Cys Tyr Trp Glu Gln 10 Val Phe Val Gln Lys Leu Gln Ser Glu Ser Leu Cys Ile Thr Glu Thr 20 25 30 Phe Ile Thr Leu Ser Pro Gln Lys Val Gly Leu Leu Leu Ser Leu Thr 35 40 Asn Lys Ile Ile Cys Ile Leu Ile Tyr Leu Lys Cys 50 55 60 <210> 152 <211> 60 <212> PRT <213> Homo sapiens <400> 152 Ser Ala Cys Lys Phe Leu Arg Asp Leu Pro Leu Leu Thr Val Asp Gln 10 15 Leu Met Tyr Thr Cys Ile Ile Lys Ala Leu Asn Lys Ser Leu Trp Leu 20 25 Ile Thr Ala Lys Met Gly Thr Arg His Leu Leu Cys Val Leu Val 35 40 Ala Val Ala Leu Arg Ala Val Arg Pro Cys Leu Ile 50 55 <210> 153 <211> 56 <212> PRT <213> Homo sapiens <400> 153 Lys Arg Asp Ile Ile Leu Asn Val Phe Ser Gln Arg Ser His Lys Arg 5 10 15 Lys Lys Asn Gln Asn Gln Ile Asn His His Glu Lys Asn Glu Thr 25 30 His Gly Asn Thr Lys Leu Trp Leu Gly Ser Ser Tyr Tyr Tyr Ser Ser 35 40 45

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His Ile Gly Trp Arg Arg Lys Pro 55 <210> 154 <400> 154 000 <210> 155 <211> 150 <212> PRT <213> Homo sapiens <400> 155 Leu His Gly Arg Ala Asp Pro Leu Gly Trp Ser Ile Pro Val His Arg Val Ile Thr Ser Gly Leu Gly Ala Gly Leu Arg Ile Val Ser Asp Leu 25 30 Gly Val Gly Leu Pro Ala Arg Arg Leu His Ser Leu Gly Arg Arg Leu 45 40 35 Asp Gly Trp Leu Glu Arg Leu Gly His Gly Arg Arg Ala Pro Val Arg 55 50 Gln Arg Arg Thr Pro Gly Arg Pro Ser Ala Ala Pro Leu Gly Ala Trp 65 70 75 80 Ala Pro Arg Arg Gly Pro Glu Ser Pro Ala Ala Cys Val Cys 95 90 Val Pro Pro Pro Gly Arg Ala Gly Asp Pro Ser Pro Pro Asp Ala 110 105 Gly 'Ala Ala Thr Lys Ala Gly Pro Ala Gly Pro Arg Gly Ala Ser 115 120 125 Val Pro Glu Leu Arg Leu Pro Pro Pro His Pro Gly Gln Leu Arg Asp 140 130 135 Pro Arg Gly Asp Arg Glu 150 145 <210> 156 <211> 81 <212> PRT <213> Homo sapiens <400> 156 Gly Gly Arg Gly Gln Asp Ala Gln Leu Arg Pro Leu Pro Val Ala Ala 10 1 Val Ser Arg Pro Glu Leu Arg Leu Gly Gly Gly Ala Pro Ser Gly Val 25 30 20 Ser Arg Gly Arg Arg Ile Gly Trp Ala Arg Val Ser Ser Pro Arg Asp Arg Val Cys Gly Gly Gly Leu Gly Ala Ser Ala Ala Gly Arg

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Gly Arg Ala His Ala Gly Gly Ala Ala Arg Gly Ala Gly Pro Leu Arg 65 70 75 80 Gly <2.10> 157 <211> 214 <212> PRT <213> Homo sapiens <400> 157 Pro Gly Ser Gln Ser Val Thr Pro Pro Met Ala Glu Pro Leu Gln 10 15 Asp Pro Gly Ala Ala Glu Asp Ala Ala Ala Gln Ala Glu Val Thr Pro 20 25 30 Gly Trp Lys Ala Pro Glu Asp Ala Gly Pro Ser Gln Pro Gly Tyr Glu 45 Ile Arg His Tyr Gly Pro Ala Lys Trp Val Ser Thr Ser Val Glu Ser Asp Met Trp Asp Ser Ala Ile Gln Thr Gly Phe Thr Lys Leu Asn Ser 65 70 75 80 Gly Glu Lys Glu Tyr Ile Gln Lys Asn Met Lys Ile Lys Met Thr Ala 90 Gly Val Thr Ser Val Glu Pro Pro Tyr Ser Gly Pro Phe Ser Glu Ser 100 105 Thr Ile Thr Ile Ser Leu Tyr Ile Pro Ser Glu Gln Gln Phe Asp Pro 115 120 Arg Pro Leu Glu Asp Val Pro Ser Phe Ile Glu Asp Arg Ala Glu 130 135 140 Thr Val Phe Val Ser Arg Phe Asp Gly Phe Ser Ser Ala Gln Lys Asn 145 150 155 160 Glu Gln Leu Leu Thr Leu Ala Ser Ile Leu Arg Glu Gly Asp Lys 165 170 175 Ala Gly Val Phe Asp Glu Lys Val Tyr Tyr Thr Tyr Asn Ser Pro Val 190 Leu Leu Asn Asn Glu Lys Arg Asn Val Trp Leu Ile Gln Lys Asn Glu 195 200 205 Pro Thr Lys Glu Asn Glu 210 <210> 158 <211> 62 <212> PRT <213> Homo sapiens <400> 158

Pro Asn Phe Tyr Arg Gly Phe Ile Phe Asn Leu Thr Met Cys Gly Gly

<400> 161

1 5 10 15 Ser Cys Leu Asn Leu Phe Arg Ala Val Cys Ser Val His Gln Met 25 30 Ser Gly Met Gly His Leu Arg Pro Phe Arg Ser Gly Leu Asn 45 Arg Met Leu Glu Pro Arg Leu Asp Ser Leu Arg Asp Thr Phe 55 <210> 159 <211> 104 <212> PRT <213> Homo sapiens <400> 159 Ile His Leu Pro Lys Lys Leu Ile Ser Phe Tyr Leu Arg Gly Glu Val 1 10 15 Ser Gly Gln Phe Phe Ser Ser Glu Ser Lys His Leu Ile Cys Trp Val 20 25 Trp Lys Thr Pro Phe Leu Ala Phe Tyr Val Ser His Leu Asn Asn Ser 35 40 45 Gln Glu Lys Gly Lys Gln Lys Thr Lys Lys Lys Lys Gly Lys Lys 55 60 His Gly Leu Val Ser Val Leu Thr Lys His Gly Ala Val 75 80 Gly Cys Leu Gly Ala Gly Tyr Arg Thr Cys Gln Cys Leu Gly Phe Ser 90 Ile Asn Leu Ala Arg Asp Ile Lys 100 <210> 160 <211> 80 <212> PRT <213> Homo sapiens <400> 160 Ser Leu Leu Ile Ser Arg Lys Ile Lys Gln Asn Thr Ser Pro Ala Arg 1 10 Leu Thr Cys Val Tyr Ile Tyr Ile Lys Gln Arg Ala Thr Pro Thr Ser 20 25 30 Gln Gln Leu Gly Glu Ile Ser Ala Val His Ala Val Val Cys 35 Gly Glu Ile Thr Trp Trp Lys Pro Lys Asn Asn Leu Leu Ala Gly Lys 50 55 60 Asn Ser Phe Ile Cys Ile Lys Ser Val Leu Gln Gly Lys Asn Pro Cys 65 70 75 80 <210> 161

000 <210> 162 <400> 162 000 <210> 163 <211> 75 <212> PRT <213> Homo sapiens <400> 163 Ile Asp Leu Glu Ala Glu Glu Ser Gln Arg Leu Leu Lys Pro Ser Val 15 Val Met Trp Phe Ser Phe Leu Leu Lys Lys Phe Leu Glu Ser Arg Ile 25 Tyr Gly Tyr Asn Val Cys Ser Leu Phe Val His Lys Ile Lys Pro 35 40 45 Lys Lys Leu Lys Lys Lys Lys Lys Arg Gly Glu Lys Lys Arg Glu Lys 50 55 Gly Lys Gly Lys Arg Lys Arg Arg Gly Glu Glu 70 <210> 164 <211> 68 <212> PRT <213> Homo sapiens <400> 164 Lys Tyr Leu Thr Leu Pro Tyr Lys Leu Leu Val Pro Phe Cys Ile Pro 5 10 15 Pro Ser Ile Thr Leu Thr Lys Gly Ile Phe Tyr Cys Glu Lys Tyr Phe 20 25 Thr Leu Tyr Ile Ser His Glu Phe Leu Pro Leu Val Thr Ile 35 40 Met Leu Pro Ser Ala Ile Ile Gln Ile Ala Gln Pro Phe Tyr Val 5.0 60 Asn Ser Leu Leu 65 <210> 165 <211> 66 <212> PRT <213> Homo sapiens <400> 165 Arg Tyr His Thr Val Pro Leu Pro Pro Lys Leu Phe Phe Leu Phe Gly 1 10 15 Arg Val Leu Ile His Trp Met Thr Leu Cys Gln Thr Gln Met Lys Leu

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Met Ala Ile Pro Leu Val Phe Gln Ile Met Phe Gly Ile Leu Asn Gly 35 40 45

Leu Tyr His Tyr Ala Val Phe Glu Glu Thr Leu Glu Lys Thr Ile His 50 55 60

Glu Glu 65

<210> 166

<211> 159

<212> PRT

<213> Homo sapiens

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Thr Arg Leu Lys Gly Asp Arg Gly Gly Val His Phe Leu Lys Ala 10 Arg Arg Gly Gly Leu Arg Ala Ser Leu Leu Tyr Leu Leu Glu Lys 30 Arg Leu Val Phe Leu Leu Ser Ile Cys Val Arg Gly Met Val Ser Ser 35 40 45 Val Lys Ser Phe Leu Val Gly Glu Gln Leu Leu Ser Ile Ser Glu Pro 50 55 Arg Phe Lys Met Ser Val Cys Lys Cys Phe Ser Leu Ser Thr Thr Ser 65 70 75 80 Thr Val Phe Pro Ile Ser Asp Ser Ser Lys Lys Val Ser Ser Tyr Phe 85 90 95 Cys Ser Glu Ser Leu Ala Glu Gln Asn Phe Leu Met Met Pro 100 105 110 Glu Val Phe Cys Ser Glu Gln Lys Phe Asp Pro Glu Leu Asn Asp Leu 115 120 125 Phe Ser Phe Phe Thr Arg Leu Phe Ser Ser Leu Val Thr Leu Arg Val

140

Ser Glu Met Gln Thr Val Leu Ser Ser

155

135

<210> 167

145

<211> 439

<212> PRT

<213> Homo sapiens

130

Pro His Ala

Pro

Ala

150

<400> 167

Lys Ser Leu Leu Phe Thr Ser Ser Lys Phe Pro Leu Ile Ser Phe Ser 1 5 10 15 Pro Gln Gly Leu Lys Phe Arg Ser Lys Ser Ser Leu Ala 20 25 30 Leu His Lys Asn Gly Glu Thr Ser Leu Lys Pro Glu Asp Phe Asp Phe 35 40 45 Thr Val Leu Ser Lys Arg Gly Ile Lys Ser Arg Tyr Lys Asp Cys Ser

50 55 60 Met Ala Ala Leu Thr Ser His Leu Gln Asn Gln Ser Asn Asn Ser 65 75 80 Trp Thr Asn Leu Arg Arg Ser Lys Cys Lys Lys Asp Val Phe Met Pro 90 95 Pro Ser Ser Ser Ser Glu Leu Gln Glu Ser Arg Gly Leu Ser Asn Phe 100 105 110 Thr Ser Thr His Leu Leu Leu Lys Glu Asp Glu Gly Val Asp Asp Val 115 120 125 Asn Phe Arg Arq Lys Val Lys Pro Gly Lys Lys Val Thr Ile Leu Lys 130 135 140 Gly Ile Pro Ile Lys Lys Thr Lys Lys Gly Cys Arg Lys Ser Ser 145 150 155 160 Phe Gly Ser Val Gln Asp Ser Lys Arg Glu Ser Val Cys Asn Lys Ala 165 170 175 Asp Ala Glu Ser Glu Pro Val Ala Gln Lys Ser Gln Leu Arg Asp Thr 185 190 Val Cys Gly Ile Ser Ala Ala Asp Cys Gly Glu Thr Leu Ser Val Thr 195 200 205 Glu Glu Ser Asn Ser Leu Val Lys Lys Lys Glu Arg Ser Leu Ser Ser 210 215 220 Gly Ser Asn Phe Ser Glu Gln Lys Cys Thr Ser Gly Ile Ile Asn Lys 225 230 235 240 Phe Cys Ser Ala Lys Asp Ser Glu His Asn Glu Lys Tyr Glu Asp Thr 245 250 255 Phe Glu Ser Glu Gly Thr Glu Ile Lys Val Glu Val Val Glu Arg 260 265 Glu Lys His Leu His Thr Asp Ile Leu Lys Arg Gly Ser Glu Met Asp 275 280 285 Asn Asn Cys Ser Pro Thr Arg Lys Asp Phe Thr Glu Asp Ile Thr Pro 290 295 300 Arg Thr Gln Ile Glu Arg Arg Lys Thr Ser Leu Tyr Phe Ser Ser Lys 305 310 315 320 Asn Lys Glu Ala Leu Ser Pro Pro Arg Arg Lys Lys Ala Phe Lys 325 330 335 Trp Thr Pro Pro Arg Ser Pro Phe Asn Leu Val Gln Glu Thr Leu Phe 340 345 350 His Asp Pro Trp Lys Leu Leu Ile Ala Thr Ile Phe Leu Asn Arg Thr 360 365 Ser Gly Lys Met Ala Ile Pro Val Leu Trp Lys Phe Leu Glu Lys Tyr 370 375 380 Glu Val Ala Pro Ser Ala Arg Thr Ala Asp Trp Arg Asp Val Ser Glu

385					390					395					400
Leu	Leu	Lys	Pro	Leu 405	Gly	Leu	Tyr	Asp	Leu 410	Arg	Ala	Lys	Thr	Ile 415	Val
Lys	Phe	Ser	Asp 420	Glu	Tyr	Leu	Thr	Lys 425	Gln	Trp	Lys	Tyr	Pro 430	Ile	Glu
Leu	His	Gly 435	Ile	Gly	Ala	Pro									
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Asp 1	Cys	Gly	Lys	Val 5	Gln	Thr	Gln	Met	Gln 10	Phe	Ala	Leu	Thr	Asn 15	Phe
Leu	Gly	Leu	Ile 20	Ser	Leu	Cys	Lys	Thr 25	Pro	Val	Leu	Ser	Phe 30	Leu	Pro
Gln	Asp	Arg 35	Val	Gln	Ser	Phe	Leu 40	Lys	His	Ala	Leu	Arg 45	Cys	Pro	His
Leu	Arg 50	His	Cys	Phe	Val	Asp 55	Thr	Leu	Lys	Gly	Val 60	His	Lys	Ala	Lys
Lys 65	Ser	Asp	Gln	Met	Leu 70	Arg	Ala	Ser	Asn	Leu 75	Tyr	Leu	Thr	Thr	Trp 80
Thr	Trp	His	Trp	Gln 85	Lys	Ser	Leu	Gln	His 90						
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Ser 1	Asp	Phe	Cys	Gln 5	Cys	His	Val	Gln	Val 10	Val	Arg	Tyr	Lys	Leu 15	Leu
Ala	Leu	Ser	Ile 20	Trp	Ser	Asp	Phe	Phe 25	Ala	Leu	Trp	Thr	Pro 30	Leu	Arg
Val	Ser	Thr 35	Lys	Gln	Cys	Leu	Arg 40	Cys	Gly	His	Leu	Arg 45	Ala	Cys	Phe
Arg	Lys 50	Leu	Cys	Thr	Leu	Ser 55	Cys	Gly	Arg	Lys	Glu 60	Arg	Thr	Gly	Val
Leu 65	His	Lys	Glu	Ile	Ser 70	Pro	Arg	Lys	Leu	Val 75	Asn	Ala	Asn	Cys	Ile 80
Cys	Val	Cys	Thr	Leu 85	Pro	Gln	Ser	Tyr	Ile 90	Val	Phe				
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<210> 170 <211> 91

<212> PRT <213> Homo sapiens

<400> 170

Ala 1	Asp	Ser	His	Gln 5	Asn	Tyr	Ile	Pro	Trp 10	Pro	Pro	Ala	Cys	Val 15	Leu
Leu	Ala	Arg	Pro 20	Trp	Leu	Ala	Ser	Leu 25	Thr	Arg	Glu	Lys	Asp 30	Leu	Gln
Lys	Ile	Arg 35	Leu	Trp	Asp	His	Phe 40	Val	Cys	Ala	Leu	Gly 45	Met	Thr	Phe
Phe	Pro 50	Thr	Pro	Gly	Lys	Pro 55	Leu	Gly	Leu	Ser	Glu 60	Thr	Leu	Trp	Leu
Ala 65	Asn	His	Met	Val	Ser 70	Leu	Lys	Val	Glu	Arg 75	Leu	Ser	Asn	Pro	Pro 80
Ile	Pro	Arg	Glu	Phe 85	Gln	Ser	Val	Asp	Val 90	Ile					

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<211> 95

<212> PRT

<213> Homo sapiens

<400> 171

Asn 1	Gly	Gly	Leu	Asn 5	Ala	His	Leu	Ala	Ser 10	Ala	Ser	Glu	Phe	Asp 15	His
Ser	Gly	Val	Gln 20	Leu	Ile	Glu	Arg	Glu 25	Glu	Glu	Ile	Cys	Ile 30	Phe	Tyr
Glu	Lys	Ile 35	Asn	Ile	Gln	Glu	Lys 40	Met	Lys	Leu	Asn	Gly 45	Glu	Ile	Glu
Ile	His 50	Leu	Leu	Glu	Glu	Lys 55	Ile	Gln	Phe	Leu	Lys 60	Met	Lys	Ile	Ala
Glu 65	Lys	Gln	Arg	Gln	Ile 70	Cys	Val	Thr	Gln	Lys 75	Leu	Leu	Pro	Ala	Lys 80
Arg	Ser	Leu	Asp	Ala 85	Asp	Leu	Ala	Val	Leu 90	Gln	Ile	Gln	Phe	Ser 95	

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<211> 90

<212> PRT

<213> Homo sapiens

<400> 172

	Thr		Phe	Gly 5		Gln	Leu	Gly	Arg 10	His	Pro	Gly	Thr	Ser 15	Trp
Leu	Ala	Val	Ile 20	Ser	Gly	Ser	His	Lys 25	Phe	Val	Phe	Ala	Ser 30	Gln	Gln
Ser	Ser	Phe 35	Ser	Gly	Ile	Gly	Ser 40	Phe	Leu	Pro	Val	Asp 45	Val	Phe	Gln

His Leu Val Ser Ser Ser Leu Gly Tyr Leu Phe Leu Phe Phe His Lys 55 Lys Cys Ile Phe Leu Leu Pro Ala Leu Ser Ala Glu Arg His Gly Tyr 70 75 80 Gln Ile Gln Arg Gln Arg Leu Ser Gly His <210> 173 <211> 102 <212> PRT <213> Homo sapiens <400> 173 Ala Val Arg Ser Arg Gly Ala Leu Ser Leu Ser Val Gly Ala Ala Cys 10 Gly Leu Val Ala Leu Trp Gln Arg Arg Arg Gln Asp Ser Gly Thr Met 20 30 Gly Ser Phe Ser Thr Glu Glu Arg Ala Ala Pro Phe Ser Leu Glu 35 Arg Phe Val Glu Lys Leu Lys Asn Gly Gln Tyr Ile Ser Pro Phe His 50 55 Asp Ile Pro Ile Tyr Ala Asp Lys Val Arg His Pro Cys Phe Thr Trp 70 75 80 Ser Ser Asp Gln Leu Val Leu His Met Asn Leu Tyr Phe Leu Ile 90 95 Cys Leu Ser Thr Ser Ala 100 <210> 174 <211> 73 <212> PRT <213> Homo sapiens <400> 174 Val Lys Arg Leu Cys Pro Lys Thr Arg Met Pro Tyr Leu Ile Cys Ile 1 5 10 Asn Trp Asn Ile Met Lys Trp Arg Tyr Ile Leu Ser Phe Leu Ile Phe 20 25 30 Glu Glu Asp Ser Val Leu Gln Gly Glu Gly Arg Gly Ala Leu Leu Gly 35 Ala Glu Ala Ala His Ser Ala Gly Val Leu Pro Pro Pro Leu Pro Gln 55 60 Ser His Gln Pro Ala Arg Gly Ala Asp 65

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<212> PRT

<213> Homo sapiens

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Gly	Ser	Glu	Cys 20	Ile	Pro	Glu	Pro	Gly 25	Ala	Arg	Arg	Thr	Ala 30	Gln	Ala
Ala	Gly	Leu 35	Arg	Ser	Val	Ser	Gly 40	Ala	Ala	Asn	Thr	Lys 45	Val	Arg	Glu
Leu	Lys 50	His	Phe	Arg	Phe	Leu 55	Gly	Leu	Leu	Arg	Ser 60	Cys	Arg	Ser	Glu
Met 65	Glu	Val	Asp	Ala	Pro 70	Gly	Val	Asp	Gly	Arg 75	Asp	Gly	Leu	Arg	Glu 80
Arg	Arg	Gly	Phe	Ser 85	Glu	Gly	Gly	Arg	Gln 90	Asn	Phe	Asp	Val	Àrg 95	Pro
Gln	Ser	Gly	Ala 100	Asn	Gly	Leu	Pro	Lys 105	His	Ser	Tyr	Trp	Leu 110	Asp	Leu
Trp	Leu	Phe 115	Ile	Leu	Phe	Asp	Val 120	Val	Val	Phe	Leu	Phe 125	Val	Tyr	Phe
Leu	Pro 130														
<210><211><212><213>	62 PRT	sapie	ns												
<400>	176														
Ile 1	Leu	Lys	Met	Ala 5	Thr	Asn	Phe	Leu	Asn 10	Lys	Glu	Asp	Arg	Thr 15	Leu
Asn	Arg	Arg	Ile 20	Ser	His	Leu	Gln	Gly 25	Thr	Leu	Pro	Phe	Ile 30	Leu	His
Phe	Val	Thr 35	Asn	Leu	Gln	Asn	Ser 40	Ile	Asn	Trp	Val	Gly 45	Phe	His	Pro
Phe	Leu 50	Ala	Lys	Phe	Leu	Lys	Leu	Asn	Pro	Leu	Val	Arg	Val		

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<212> PRT

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<400> 177

Ala Val Tyr Cys Ile Leu His Gln Gln Lys Val Leu Arg Leu Tyr Lys 15

Arg Ala Leu Arg His Leu Glu Ser Trp Cys Val Gln Arg Asp Lys Tyr 25

60

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Met Arg Ala Arg Phe Glu Glu His Lys Asn Tyr Phe Ala Cys Leu Arg 35 40 45 Glu Lys Asp Met Ala Lys Ala Thr Gln Leu Leu Lys Glu Ala Glu 55 Gln Glu His Pro Gln Phe Trp Tyr Arq Pro Tyr Ile Phe Pro 70 65 75 Gly Gly Thr Ser Tyr Glu Arg Tyr Pro Asp Cys Tyr Lys Val Pro Glu 85 90 95 Trp Cys Leu Asp Asp Trp His Pro Ser Glu Lys Ala Met Tyr Pro Asp 100 105 110 Ala Trp Tyr Phe Lys Arg Glu Gln Lys Lys Arg Glu Leu Arg Ser Trp 115 120 125 Gln Leu Gln Glu Arg Glu Val Lys Glu Glu Thr Pro Pro Gly Gly Pro 135 130 140 Pro Thr Glu Ala Pro Ala Glu Gly Leu Leu Leu Arg Lys Asp Pro Pro 145 150 155 160 Trp Trp Ile Val Leu Tyr Thr Arg Pro Arg Glu Arg Pro Met 165 170

<210> 178

<211> 131

<212> PRT

<213> Homo sapiens

<400> 178 -

Ser Pro Leu Val Pro Phe Pro Ser Ala Val Ser Ser Thr Val Leu Ser 10 15 Gln Lys Trp Gln Ser Asn Gln Asp Thr Leu Pro Ser Asp Ala Ser His 25 Leu Thr Ile Leu Gly Pro Cys Ser Asn Arg Ile Ser His Arg Arg 35 40 Cys Pro Gln Glu Gln Gly Ser Arg Cys Met Ala Val Asp Ala Asp 50 55 60 Thr Gly Trp Pro Pro Ala Arg Ile Leu Pro Arg Ser Ala Pro Ser Pro 65 70 80 Tyr Pro Phe His Ser Tyr Val Leu Gln Thr Gly Leu Ser Ser Asn Lys 85 95 90 Gly Thr `Thr Gln Ser Ile Ile Cys Leu Ser Gly Arg Thr Arg Gly Gly 100 105 110 Val Ala Pro Ala Tyr Lys Ala Ala Thr Pro Phe Ala Asp Val Val Cys 115 120 125

Asn Ile Arg

<210> 179

<211> 80

1

5

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50 55 60 Ser Ser Ala Lys Arg Pro Trp Asn Leu Asn Gly Gly Cys Phe Ala 65 75 Trp Leu Gly Gly Ser Cys Gln Trp Asp Ser Phe Asp Lys Pro Pro 90 95 Pro Trp Trp His Leu Ser Trp Lys Asp Val Thr Thr Pro Gly Ala Gln 100 105 110 Thr Ala Cys Gly Ala Phe Gly Ile Phe Ser Arg Thr Ser Leu Pro Gln 115 120 125 Trp Gly Arq 130 <210> 184 <211> 128 <212> PRT <213> Homo sapiens <400> 184 Ala Pro Cys Cys Arg Cys Pro Ala Pro Val Pro Ser Val Asn Pro 10 Leu Ser Leu Trp Cys Trp Phe Arg Ser Arg Leu Gln Gln Asn Asp Leu 25 Gly Ser Met Gly Ala Ala Leu Leu Trp Glu Val Gly Leu Val Gly 35 40 45 Thr Arg Ala Leu Thr Asn Leu Leu Gly Leu Leu Gly Thr Ser Pro Gly 60 Arg Thr Ser Gln Gln Leu Val Leu Arg Leu Pro Val Ala ${\tt Glu}$ Ala Pro 65 70 75 80 Val Pro Leu Ala Phe Ser Ser His Asn Gly Glu Gly Asp Phe Gly Ile 90 Thr Leu Ser Ser Ser Leu Gly Leu Leu Leu Pro Ser Thr Ser 100 105 110 Arg Phe Ser Ser Ile Cys Ala Tyr Leu Arg Tyr Thr Val Ser Ala 115 120 125 <210> 185 <211> 75 <212> PRT <213> Homo sapiens <400> 185 Asp Cys Phe Ser Gly Asn Tyr Arg Lys Leu Val Arg Val Tyr Leu 10 15 Pro Arg Lys Thr Gly Ala Ile Arg Asn Gly Ser Asn Ile Ser Lys 20 25 30 Arg Lys Gln Asp Val Leu Ser Phe Ala His Leu Gly Phe Leu Leu Phe 35 40 45

Pro Phe Ser Leu Phe Ser Leu Arg Ser Leu Phe Gln Phe Pro Ser Asp 50 55 60 Pro Leu Val Pro Leu Glu Ser Gln Arg Leu Leu 65 70 <210> 186 <211> 62 <212> PRT <213> Homo sapiens <400> 186 Leu Gly Asp Ser Glu Ser Met Pro Leu Leu Ala Leu Lys Cys Pro 10 15 Arg Leu Leu Gly Thr Leu Glu Pro Ser Glu Ile Leu Ile Ile Leu Gly 20 25 30 Phe Ser Ser Pro Tyr Phe Gln Met Ser Ala Gln His Trp Val Leu Ser 40 45 Ser Thr Thr Glu Asn Pro Glu Glu Lys Gly Arg Cys Phe Pro 50 55 <210> 187 <211> 89 <212> PRT <213> Homo sapiens <400> 187 Arg Leu Thr Gln Gly Arg Trp Val Arg Lys Pro His Pro Ser Arg Ser 10 15 Val Met Glu Lys Ile Pro Val Ser Ala Phe Leu Arg Leu Val 25 30 Ala Leu Ser Tyr Asn Leu Ala Arg Asp Ser Thr Val Lys Pro Gly 35 40 Lys Arg Lys Glu Ser Arg Ala Lys Lys Asp Leu Arg Gln Thr Leu Ser 55 Arg Ser Trp Gly Glu Gln Leu Ile Trp Thr Gln Thr Tyr Glu Glu Ala 65 75 80 Tyr Lys Ser Arg Leu Ala Thr Asn 85 <210> 188 <211> 72 <212> PRT <213> Homo sapiens <400> 188 Gly Asn Pro Glu Leu Pro Trp Arg Lys Phe Gln Cys Gln His Ser Cys 10 15 Ala Leu Trp Arg Ser Pro Thr Ile Trp Pro Gly Ile Ala Gln Ser Asn 20 25

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Ser Val Ala Phe Met Leu Thr Leu Pro Ile Leu Val Cys Lys Val Gln 85 90 95 Asp Ser Asn Arg Arg Lys Met Leu Pro Thr Gln Phe Leu Phe Leu 105 Gly Val Leu Gly Ile Phe Gly Leu Thr Phe Ala Gly Phe Ile Ile Leu 115 120 125 Asp Gly Thr Ser Gly Pro Thr Phe Arg Phe Phe Leu Gly Ile 135 140 Ser Ile Cys Phe Ser Cys Leu Leu Ala His Ala Val Ser Leu Thr 145 150 155 160 Leu Val Arg Gly Arg Lys Pro Leu Ser Gly Arg Leu Val Ile Leu Leu 165 170 175 Ala Val Gly Phe Ser Leu Val Gln Asp Val Ile Ala Ile Glu Tyr Ile 180 185 190 Val Leu Thr Met Asn Arg Thr Lys 195 200 <210> 191 <211> 111 <212> PRT <213> Homo sapiens <400> 191 Ala Glu Ala His Gly Gln Thr Gln Asn His Gln Pro Gly Lys Gly Leu 10 Pro Pro Pro Asp Glu Leu Gly Gln Thr Asp Ser Met Ser Gln Gln Ala 25 Gly Glu Ala Gly Pro Lys Glu Glu Glu Asp Lys Glu Asp Ala Cys Gly 35 40 Pro Cys Pro Val Gln Ser Asp Asp Glu Gly Glu Gly Glu Ala Lys 55 Asp Ala Gln His Thr Gln Glu Glu Lys Leu Ser Arg Gln Phe His 65 70 Ser Pro Val Gly Val Leu His Leu Ala Asp Glu Asp Arg Glu Ser Glu 85 90 His Glu Gly His Arg Gly His Asn Pro Gly Cys Gly His Arg 100 105 110 <210> 192 <211> 92 <212> PRT <213> Homo sapiens <400> 192 Glu Ile Tyr Trp Glu Thr Asp Tyr Asn His Ser Gly Thr Ile Asp Ala 5 10 15

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Thr Gln

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Ala Ser Arg Arg Ser Gly 85

Lys

Phe Ser

Gln

Ile Ser

Ser

70

55

Ala

Ile Ser Gly Leu

Glu Ala His Glu Tyr Glu Arg Gln

75

Ser

60

Asp

Phe Leu

80

Asn

Ala

Leu Ser

50

Glu Glu

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Asp	Ala	Thr	Leu 20	Leu	Ala	Ser	Gln	Cys 25	Ile	Leu	Gly	Gly	Ala 30	Arg	Leu
Leu	Thr	Ile 35	Arg	Leu	Leu	Ala	Ser 40	Pro	Val	Gln	Ser	Phe 45	Leu	Trp	Lys
Ala	Val 50	Asp	Phe	Ser	Leu	Ala 55	Ser	Leu	Ser	Ser	Ser 60	Val	Ser	Thr	Tyr
Arg 65	Ile	Ser	Arg	Ser	Gln 70	Pro	Tyr	Arg	Val	Cys 75	Gln	Thr	Trp	Leu	Arg 80
Arg	Lys	Ser	Lys	Ala 85	Arg	Arg	Thr	Ser	Thr 90	Ser	Asp	Ser	Ser	Ser '95	Arg
Leu	Ala	Ala	Val 100	Ala											
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Thr	Gln	His	Phe 20	Ser	His	Leu	Ser	Ala 25	Tyr	Leu	Ala	Ala	His 30	Ala	Ser
Leu	Arg	Phe 35	Ala	Cys	Leu	Leu	Leu 40	Leu	Phe	Asn	Arg	Phe 45	Phe	Gly	Arg
Gln	Trp 50	Ile	Phe	Leu	Leu	Arg 55	Leu	Cys	Leu	Leu	Gln 60	Phe	Arg	Leu	Ile
Glu 65	Phe	Leu	Asp	Leu	Ser 70	His	Ile	Gly	Phe	Val 75	Arg	His	Gly	Cys	Gly 80
Gly	Lys	Ala	Lys	Arg 85	Gly	Ala	Arg	Val	Arg 90	Ala	Thr	Val	Pro	Arg 95	Val
Ser	Pro	Gln	Trp 100												
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Gly	Pro	Phe	Gly	Leu	Val	Ile	Leu	Gly	Phe	Pro	Ser	Asn	Gln	Phe	Gly

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20 25 30 Lys Gln Glu Pro Gly Glu Asn Ser Glu Ile Leu Pro Ser Leu 35 40 45 Gly Phe Val Gly Gly Pro Asn Phe Gln Leu Phe Val Arq Pro Glu 55 60 Gly Glu Glu Phe Gly Asp Val Asn Lys Gln Lys Tyr Thr Phe Leu 75 65 80 Thr Ala Glu Leu Leu Gly Ser Cys Pro Pro Ser Pro Gly Arg Leu Asn 90 asp Phe Glu Pro Met Lys Ile His Ile Arg Trp Asn Phe Glu Lys Trp 100 105 110 Leu Val Gly Pro Asp Gly Ile Pro Val Met Arg Trp Tyr His 115 120 125 Thr Thr Val Ser Asn Val Lys Met Asp Ile Leu Ser Tyr Met Arg Arg 130 135 140 Gln Ala Ala Leu Ser Ala Arg Gly Lys <210> 201 <211> 249 <212> PRT <213> Homo sapiens <400> 201 Tyr Pro Tyr Pro Leu Pro Ile Met Gln Gly Leu Met Pro Pro Pro Pro 10 Arg Arg Gly Ser Ser Gly Arg Lys Pro His Ser Gln Ser Phe Tyr Pro Arg Gln Ala Arq Phe Ser Phe Leu Leu His His Pro Lys Trp His Asn 35 Trp Thr Val Glu Pro Leu Arg Asp Asn Cys Pro Ser Val 50 55 60 Pro Arg Ile Cys Met Ala Thr Gln Leu Leu Glu Thr Gln Gly Trp Ser 65 70 75 80 Tyr Gly Leu Ala Gln His Pro His Ile Phe Phe Cys Val Ser Phe 90 Met Glu Thr Phe Gln Ser Pro Lys Gln Val Leu Gly Pro Met Val Leu 100 105 110 Lys Pro Glu His His Ser Trp Gly Gln His Leu Pro His His Thr Thr His His Gln Pro Pro Phe Leu Ser Ser Lys Asp Pro Pro 130 135 140 Glu Glu Thr Ser Gln Asp Pro Pro Ser Pro Ser His Ser Ala Pro Asn

155

160

150

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Cys Glu Arg Asp Gly Arg Val Pro Gln Val Arg Gly Gly Val Ser Met 165 170 175 Lys Glu Gly Pro Glu Ala Leu Val Gly Gly Pro Pro Leu Ser Pro Ser 185 190 Val Pro ·Val Ala Leu Ser Ala Phe Arg Leu Arg Leu Pro Gly Arg Asp 195 200 205 Thr Thr Glu Pro Ala Pro Leu Asp Met Leu Ser Ser His Ser Val 215 220 Trp Tyr Leu Asn Thr Pro Ile Cys Pro Val Lys Val Phe Leu Gln 225 230 235 Lys Lys Lys Arg Lys Lys Lys Lys 245 <210> 202 <211> 156 <212> PRT <213> Homo sapiens <400> 202 Pro Pro Pro Ala Pro Leu Leu Cys Arg Ala Gln Ala Gly Leu Ser Ala 10 Ala Pro Leu Ala Leu Gly Pro Asn Phe Ser Tyr Arg Gly His Val Arg 30 Gly Ser Ser Pro Pro Gly Ala His Leu Pro Glu Ala Gly Arq Cys Gly 35 40 Gly Pro Arg Gly Arg Ser Gln Ala Gln Ser Pro Gln Ser Ser Gly Pro 55 60 Gly Gly Arg Val Gly Arg Ser Gly Ser Lys Ala Arg Thr Pro Gln Leu 65 80 Arg Leu Gln Gln Gln Leu Gln Arg Phe Gly His Gly Cys Glu Val Pro Arg Cys Trp Leu Gln Ala Ala Arg Glu His Pro Gly Gln Gly Gln 100 105 Glu Ala Gln Ser Glu Glu Glu Gly Glu Gly Gln Glu Gly Glu Gly Gln 120 125 Glu Glu Ser Gly Gly Pro Leu Lys Gly Pro Gly Gln Gly Ser Leu Asn 130 135 140 Leu Pro Leu Cys Arg Val Pro Thr Leu Thr Trp Ser 145 150 155 <210> 203 <211> 113 <212> PRT <213> Homo sapiens

Asp Pro Thr Ser Leu Thr Ala Met Glu Phe Asp Leu Gly Ala Ala Leu

10

5

15 Pro Thr Ser Gln Lys Pro Gly Val Gly Ala Gly His Gly Gly Asp 25 Pro Lys Leu Ser Pro His Lys Val Gln Gly Arg Ser Glu Ala Gly Ala 45 Pro Gly Pro Lys Asp Gly Gln Gly His His Ser Ser Ser Ser Ser Ser 55 60 Ser Ser Ser Asp Ser Thr Asp Asp Val Lys Ser His Gly Ala Ala 70 80 Lys Gln His Glu Ser Ile Pro Gly Lys Ala Lys Lys Pro Lys 90 Lys Glu Lys Gly Lys Lys Glu Lys Gly Lys Lys Glu Ala 100 105 110 His <210> 204 <211> 162 <212> PRT <213> Homo sapiens <400> 204 Ser Arg Trp Leu Val Gly Gly Pro Pro Pro Pro Lys His Leu Ser Leu 10 15 Val Gly Arg Glu Glu Gly Leu Met Ser Pro Val Gln Gly Pro Ser Val 30 Gly Ser Leu Leu Leu Leu Ala Leu Leu Leu Leu Ala Leu Leu Leu Leu 35 40 Leu His Phe Gly Leu Leu Gly Leu Ala Arg Asp Ala Leu Val Gly Ala Ser Ser Val Gly Leu His Ile Arg Val Arg Ile Ala Gly Ala 65 80 Ala Gly Val Gly Arg Ala Val Val Ser Trp Leu Leu Thr Arg Thr 85 95 Pro Cys Cys Leu Arg Pro Ala Val Gly Leu Asn Phe Thr Glu Leu Gly 100 105 Ser Pro Val Ala Arg Pro His Thr Gly Leu Leu Gly Gly Gly 115 120 125 Gln Gly Cys Ser Gln Val Glu Leu His Gly Gly Lys Arg Ser Trp 130 135 140

Pro Arg Ala Pro Gly Pro Cys Arg

150

Gly Ala Glu Gln Gly Glu

160

155

Glu Arg

Leu Arg

1

<210> 205

145

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<212> PRT <213> Homo sapiens

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Ile	Ala	Asp 35	Asn	Arg	Pro	Ser	Val 40	Glu	Phe	His	Glu	Arg 45	Gly	Lys	Asn
His	Lys 50	Glu	Asn ,	Val	Ala	Lys 55	Arg	Ile	Ser	Glu	Ile 60	Lys	Gln	Lys	Ser
Leu 65	Asp	Lys	Ala	Lys	Glu 70	Glu	Glu	Lys	Ala	Ser 75	Lys	Glu	Phe	Ala	Ala 80
Met	Glu	Ala	Ala	Ala 85	Leu	Lys	Ala	Tyr	Gln 90	Glu	Asp	Leu	Lys	Arg 95	Leu
Gly	Leu	Glu	Ser 100	Glu	Ile	Leu	Glu	Pro 105	Ser	Ile	Thr	Pro	Val 110	Thr	Ser
Thr	Ile	Pro 115	Pro	Thr	Ser	Thr	Ser 120	Asn	Gln	Gln	Lys	Glu 125	Lys	Lys	Glu
Lys	Lys 130	Lys	Lys	Arg	Ser	Phe 135	Lys	Gly	Gln	Met	Gly 140	Arg	Arg	His	Asn
Leu															

Leu 145

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Lys	Arg	Arg	Arg 20	Lys	ГÀз	Asp	Pro	Ser 25	Lys	Gly	Arg	Trp	Val 30	Glu	Gly
Ile	Thr	Ser 35	Glu	Gly	Tyr	His	Tyr 40	Tyr	Tyr	Asp	Leu	Ile 45	Ser	Gly	Ala
Ser	Gln 50	Trp	Glu	Lys	Pro	Glu 55	Gly	Phe	Gln	Gly	Asp 60	Leu	Lys	Lys	Thr
Ala 65	Val	Lys	Thr	Val	Trp 70	Val	Glu	Gly	Leu	Ser 75	Glu	Asp	Gly	Phe	Thr 80
Tyr	Tyr	Tyr	Asn	Thr 85	Glu	Thr	Gly	Glu	Ser 90	Arg	Trp	Glu	Lys	Pro 95	Asp
Asp	Phe	Ile	Pro 100	His	Thr	Ser	Asp	Leu 105	Pro	Ser	Ser	Lys	Val 110	Asn	Glu

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Asn	Ser	Leu 115	Gly	Thr	Leu	Asp	Glu 120	Ser	Lys	Ser	Ser	Asp 125	Ser	His	Ser
Asp	Ser 130	-	Gly	Glu	Gln	Glu 135	Ala	Glu	Glu	Gly	Gly 140	Val	Ser	Thr	Glu
Thr 145		Lys	Pro	Lys	Ile 150	Lys	Phe	Lys	Glu	Lys 155	Asn	Lys	Asn	Ser	Asp 160
Gly	Gly	Ser	Asp	Pro 165	Glu	Thr	Gln	Lys	Glu 170	Lys	Ser	Ile	Gln	Lys 175	Gln
Asn	Ser	Leu	Gly 180	Ser	Asn	Glu	Glu	Lys 185	Ser	Lys	Thr	Leu	Lys 190	Lys	Ser
Asn	Pro	Tyr 195	Gly	Glu	Trp	Gln	Glu 200	Ile	Lys	Gln	Glu	Val 205	Glu	Ser	His
Glu	Glu 210	Val	Asp	Leu	Glu	Leu 215	Pro	Ser	Thr	Glu	Asn 220	Glu	Tyr	Val	Ser
Thr 225		Glu	Ala	Asp	Gly 230	Gly	Gly	Glu	Pro	Lys 235	Val	Val	Phe	Lys	Glu 240
Lys	Thr	Val	Thr	Ser 245	Leu	Gly	Val	Met	Ala 250	Asp	Gly	Val	Ala	Pro 255	Val
Phe	Lys	Lys	Arg 260	Arg	Thr										
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Ser	Cys	Pro	Glu 20	Ser	Ile	Pro	Arg	Gly 25	Phe	Glu	Lys	Thr	Trp 30	Leu	Arg
Val	Arg	Asn 35	Phe	Gly	Ala	Lys	His 40	Asn	Thr	Ser	Asn	Gln 45	His	Tyr	Pro
Thr	Tyr 50	Leu	Asp	Ile	Lys	Ser 55	Thr	Glu	Arg	Lys	Glu 60	Arg	Glu	Glu	Glu
Lys 65															
	-	Ile	Leu	Gln	Arg 70	Ala	Asp	Gly							
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20 25 30

Leu Leu Leu Glu Leu Trp Gln Met Glu Trp Pro Gln Ser Ser Lys 40 45 Ile Leu Gly Lys Glu Leu Glu Asn Gly Lys Phe Lys Gly Asn Glu 50 55 60

Val Met Ile Gln 65

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<400> 209

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<400> 210

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Glu Asn

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<211> 82

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10

Gly

Cys

Pro

Ile Gly His

Leu

Leu

Asp

Ile

75

Asn Gly

Leu

Ile

Phe

45

Leu

Gly

60

Val

15

His

Glu

Gly

Ile Val

Asp

Ser

Asp

80

Gly

Lys

Pro

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Ile

Val

70

Asn

Thr His

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Pro

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<211> 119 <212> PRT

<213> Homo sapiens

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Ser

Val Val

<400> 212

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<213> Homo sapiens

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Gly Leu Pro

Glu

20

Ala Gln Thr Pro

Arg

25

Met

Ser Pro Gln Ala

Arg Glu

30

20 25 30 Cys Cys Ser Gly Leu Met Ser Lys Ser Arg Ser Ser Leu Leu Cys Leu 35 40 45 Ala Glu Lys Pro Leu Ala Phe Phe Phe Phe Ser Leu Arg Leu Trp Arg Val Lys Tyr Ser Arg Thr Thr Ala Leu Arg Cys Ser Trp Ser Ser Arg 65 75 80 Ala Cys Gly Leu Met Arg Gly Val Cys Ala Ser Gly Arg Pro Ser Arq 90 95 Arg Pro Arq Pro Ala Val Leu Leu Lys Ala Gly His Arg Ser His Ser 100 105 Pro Leu Ser Glu Thr Met His Gly Arg Ser His Ser Ser Phe Ser 115 120 125 Arq Phe Arg Arg Ser Leu Met Thr 130 135 <210> 214 <211> 101 <212> PRT <213> Homo sapiens <400> 214 Thr Leu Glu Thr Val His Gln Gly Pro Val Gln Trp Ala Gln Ala Arg 10 15 His Ala Thr Ala Asp Asp Ser Gly Gln Ala Lys Leu Gly Ser Arg Ser 20 Arg Gly Tyr Tyr Phe Ser Lys Ile Asp Gln Met Pro Leu Leu Cys Gly 40 Tyr Tyr Arg Asn Pro Ser Thr Gly Asn Lys Ala His Phe Gln Asn Tyr 50 His Gln Arg Arg Ser Tyr Pro Pro Glu Pro Gln Ala Lys Leu 65 70 80 Cys Gly Asn Arg His Trp Leu Tyr Phe Leu His Leu Arg Glu Gln Ile 85 90 Pro Ala Ser Val Lys 100 <210> 215 <211> 204 <212> PRT <213> Homo sapiens <400> 215 Leu Phe Arg Ser Thr Ala Gly Arg Gly Leu Arg Arg Cys Pro Ala Glu 15

Gln Leu Gln Arg Lys Ala Val Val Phe Asp Leu Glu Tyr Thr Arg His 35 40 Arg Glu Lys Lys Lys Lys Ala Gly Phe Lys Ser Ala Gln Arg 50 55 Arg Arg Glu Leu Arg Leu Phe Asp Ile Pro Glu Gln Lys Gln Arg Tyr 65 70 80 Ser Leu Phe Leu Pro Leu His Glu Leu Trp Lys Gln Tyr Ile Arg Asp 85 90 95 Cys Gly Thr Leu Ser Leu Lys Pro Asp Gln Gln Pro Met Ile Gln Ala 100 105 110 Lys Leu Leu Lys Ala Asp Leu His Gly Ala Ile Ile Ser Val Thr Lys 120 125 Ser Lys Cys Pro Ser Tyr Val Gly Ile Thr Gly Ile Leu Leu Gln Glu 130 135 Thr Ile His Ile Phe Lys Ile Thr Lys Glu Asp Arg Leu Val 150 155 160 Ile Pro Leu Asn Cys Val Phe Lys Thr Val Glu Thr Gly Phe Ile Asp 170 175 Gly Tyr Ser Lys Gln Ile Phe Leu Arg Ser Ser Glu Arg Ser 180 185 190 Ala Lys Lys Phe Lys Ala Lys Gly Thr Ile Asp Leu 195 200

<210> 216

<211> 645

<212> PRT <213> Homo sapiens

<400> 216

Gln Gln Gln Ser Pro Arg Pro Val Ala Ala Gly Ser Glu Ala 10 15 Phe Ile Gln Glu Arg Gln Pro Val Ala Leu Met Arg Leu Leu Ser Phe Val Pro His Asn Ile Lys Asn Ser Thr Gly Glu Pro Ile Trp Lys Val 35 40 Leu Ile Tyr Phe Gly Asp Arg Gln Asp Ile Ile Ser Pro Leu 60 Val Lys Glu Asp Gly Thr Leu Arg Met Ile Leu His Leu Leu Leu His 65 70 75 80 Ser Arg Asp Pro Ile Asp Pro Asp Val Pro Ala Val Tyr Phe Val Met Pro Thr Glu Glu Asn Ile Asp Arg Met Cys Gln Asp Leu Arg Asn Gln 100 105 110 Tyr Glu Ser Leu Tyr Tyr Leu Asn Phe Ile Ser Ala Ile Ser Arg

115 120 125 Lys Leu Glu Asp Ile Ala Asn Ala Ala Leu Ala Ala Ser Ala Val Thr 130 135 140 Gln Val Ala Val Phe Tyr Lys Asp Gln Leu Asn Phe Ile Thr Leu Glu 145 150 155 160 Phe Val Asp Met Leu Cys Gln Asp Asn Asn Lys Glu Leu Val Ser Tyr 165 170 175 Arg Ala Ile Asn Arg Pro Asp Ile Thr Asp Thr Glu Glu Thr Met Val 185 190 Met Asp Thr Ile Val Asp Ser Leu Phe Cys Phe Phe Val Thr Leu Gly 195 200 205 Val Ala Pro Ile Ile Cys Arg Ser Arg Gly Thr Ala Ala Glu Met Val 210 215 220 Ala Val Lys Leu Asp Lys Lys Leu Arg Glu Asn Leu Arg Asp Ala Arg 225 230 235 240 Asn Ser Leu Phe Thr Gly Asp Thr Leu Gly Ala Gly Gln Phe Ser Phe 245 250 255 Gln Arg Pro Leu Leu Val Leu Val Asp Arg Ile Asn Asp Leu Ala Thr 260 265 270 His His Trp Tyr Pro Leu Thr Thr Gln Ala Leu Val His Asp Val Leu 275 280 Asp Phe His Leu Asn Arg Val Asn Leu Glu Glu Ser Ser Gly Val 290 295 300 Asn Ser Pro Ala Gly Ala Arg Pro Lys Arg Lys Asn Lys Lys Ser Tyr 305 315 320 Asp Thr Pro Val Asp Phe Gln Lys Trp Lys His Ser Lys Gly Pro 325 330 335 Phe Pro Glu Val Ala Glu Ser Gln Val Gln Glu Leu Glu Ser Tyr Arg 340 345 350 Ala Gln Glu Asp Glu Val Lys Arg Leu Lys Ser Met Ile Gly Leu Glu 355 360 365 Gly Glu Asp Glu Gly Ala Ile Ser Ser Asp Met Leu Asn Thr Ala Lys 370 375 380 Leu Ala Val Ser Ser Ser Leu Pro Glu Leu Leu Glu Lys Lys Arg 385 390 395 400 Leu Ile Asp Leu His Thr Asn Val Ala Thr Ala Val Leu Glu His Ile 405 410 415 Lys Ala Tyr Arg Lys Phe Leu Asp Val Glu Tyr Glu Glu Lys 420 425 430 Thr Ser Lys Thr Ser Leu Asp Lys Ile Leu Leu Asp Ile Ser Asp Pro 435 440 445 Ala Gly Thr Pro Glu Arg Asp Lys Met Leu Phe Leu Ile Tyr Tyr

		450					455					460				
	Ile 465	Ser	Thr	Gln	Gln	Ala 470	Pro	Ser	Glu	Ala	Asp 475	Leu	Glu	Gln	Tyr	Lys 480
	Lys	Ala	Leu	Thr	Asp 485	Ala	Gly	Cys	Asn	Leu 490	Asn	Pro	Leu	Gln	Tyr 495	Ile
	Lys	Gln	Trp	Lys 500	Ala	Phe	Thr	Lys	Met 505	Ala	Ser	Ala	Pro	Ala 510	Ser	Tyr
	Gly	Ser	Thr 515	Thr	Thr	Lys	Pro	Met 520	Gly	Leu	Leu	Ser	Arg 525	Val	Met	Asn
	Thr	Gly 530	Ser	Gln	Phe	Val	Met 535	Glu	Gly	Val	Lys	Asn 540	Leu	Val	Leu	Lys
	Gln 545	Gln	Asn	Leu	Pro	Val 550	Thr	Arg	Ile	Leu	Asp 555	Asn	Leu	Met	Glu	Met 560
	Lys	Ser	Asn	Pro	Glu 565	Thr	Asp	Asp	Tyr	Arg 570	Tyr	Phe	Asp	Pro	Lys 575	Met
	Leu	Arg	Gly	Asn 580	Asp	Ser	Ser	Val	Pro 585	Arg	Asn	Lys	Asn	Pro 590	Phe	Gln
•	Glu	Ala	Ile 595	Val	Phe	Val	Val	Gly 600	Gly	Gly	Asn	Tyr	Ile 605	Glu	Tyr	Gln
4	Asn	Leu 610	Val	Asp	Tyr	Ile	Lys 615	Gly	Lys	Gln	Gly	Lys 620	His	Ile	Leu	Tyr
	Gly 625	Cys	Ser	Glu	Leu	Phe 630	Asn	Ala	Thr	Gln	Phe 635	Ile	Lys	Gln	Leu	Ser 640
(Gln	Leu	Gly	Gln	Lys 645											

<210> 217 <211> 101 <212> PRT <213> Homo sapiens

<400> 217

Gly 1	Ala	Gly	Pro	Ser 5	Gln	Leu	Arg	Leu	His 10	Tyr	Pro	Arg	Ile	Ser 15	Met
Ala	Val	Arg	Gln 20	Trp	Val	Ile	Ala	Leu 25	Ala	Leu	Ala	Ala	Leu 30	Leu	Val
Val	Asp	Arg 35	Glu	Val	Pro	Val	Ala 40	Ala	Gly	Lys	Leu	Pro 45	Phe	Ser	Arg
Met	Pro 50	Ile	Cys	Glu	His	Met 55	Val	Glu	Ser	Pro	Thr 60	Cys	Ser	Gln	Met
Ser 65	Asn	Leu	Val	Cys	Gly 70	Thr	Asp	Gly	Leu	Thr 75	Tyr	Thr	Asn	Glu	Cys 80
Gln	Leu	Cys	Leu	Ala 85	Arg	Ile	Lys	Thr	Lys 90	Gln	Asp	Ile	Gln	Ile 95	Met

Lys Asp Gly Lys Cys 100

<210> 218

<211> 123

<212> PRT

<213> Homo sapiens

<400> 218

Gln Leu Gly Trp Phe Tyr Phe Met Ser Tyr Pro Leu His Ala Ile His 10 15 His Cys Ser Pro Ala Asp Thr Glu Val Leu Ser Trp Leu Leu 25 Gln His Leu Pro Ser Phe Met Ile Trp Met Ser Cys Leu Val Phe Ile 40 Arg Ala Lys Gln Ser Trp His Ser Phe Val Tyr Val Ser Pro Ser Val 50 55 60 Pro Gln Thr Arg Leu Ile Trp Glu Gln Asp Val Gly Asp Ser Thr Met 65 70 80 Ser Gln Met Gly Ile Leu Glu Lys Gly Ser Phe Pro Ala Ala Thr 85 Gly Thr Ser Leu Ser Thr Thr Arg Arg Ala Ala Lys Ala Arg Ala Ile 100 105 110 Trp Arg Thr Ala Met Leu Ile Leu Gly Thr His

<210> 219

<211> 64

<212> PRT

<213> Homo sapiens

115

<400> 219

Ile Lys Ala Lys Phe Asn Leu Asn Ala Phe Phe Phe Phe Phe Leu 15 Arg Ser Glu Ile Gly Thr Val Ile Leu Ser Thr Glu Arg Gln Thr 25 30 Lys Trp Ala Met Lys Gly Gly Gly Lys Val Leu Ser Ile Val Arg Gly 40 45 Pro Glu Ile Lys Pro Ile Tyr Lys His Val Cys Ser Ser Lys Ile Gln

60

55

<210> 220

<211> 67

<212> PRT

<213> Homo sapiens

50

<400> 220

Ser Phe Ala Ile Pro Phe Pro Trp His Cys Thr Ile Ser Pro Ile Ile 5 10

Gly Gln Ser Leu Gly Phe Leu Gly Phe Thr Met Val Ala Thr Thr Ile 20 25 30

Arg Leu Ile Asp Gly Ser Asn Leu Lys Lys Lys Val Met Val Met Asp 35 40 45

Lys Ile Ser Arg Ser Arg Glu Val Cys Tyr His Lys Ile Thr Val Ala 50 60

Ser Thr Ser

<210> 221

<211> 117

<212> PRT

<213> Homo sapiens

<400> 221

Thr Ile Ile Ser Ser Ile Thr Asp Ser Gln Leu Gln Glu Val Ala Glu 1 5 10 15

Gln Leu Glu Ile Phe Ala Ala Leu His Glu Val Leu His Ile Ile Asn 20 25 30

Asp Arg Lys Asn Leu Lys Gly Gly Leu Gln Glu Val Ala Glu Gln Leu 35 40

Glu Leu Glu Arg Ile Gly Pro Gln His Gln Ala Gly Ser Asp Ser Leu 50 60

Leu Thr Gly Met Ala Phe Phe Lys Met Arg Glu Met Phe Phe Glu Asp
65 70 75 80

His Ile Asp Asp Ala Lys Tyr Cys Gly His Leu Tyr Gly Leu Gly Ser 85 90 95

Gly Ser Ser Tyr Val Gln Asn Gly Thr Gly Asn Ala Tyr Glu Glu Glu 100 105 110

Ala Asn Lys Gln Ser 115

<210> 222

<211> 196

<212> PRT

<213> Homo sapiens

<400> 222

Pro Thr Cys Pro Ile Gln His Phe Ile Met Met Lys Leu Trp Val Pro 1 5 10

Ser Arg Ser Leu Pro Asn Ser Pro Asn His Tyr Arg Ser Phe Leu Ser 20 25 30

His Thr Leu His Ile Arg Tyr Asn Asn Ser Leu Phe Ile Ser Asn Thr
35 40 45

His Leu Ser Arg Arg Lys Leu Arg Val Thr Asn Pro Ile Tyr Thr Arg 50 55 60

Lys Arg Ser Leu Asn Ile Phe Tyr Leu Leu Ile Pro Ser Cys Arg Th

65 70 75 80 Trp Ile Leu Ile Leu Ile Tyr Ile Tyr Arg Arq Asn Leu Lys His Ser Thr Ser Thr Val Arg Ser His Ser His Ser Ile Tyr Arg Leu Arg 100 105 110 Ser Met Thr Ile Ile Arg Pro Arg Asn Leu Cys His Ser Tyr Tyr Lys 115 120 125 Ile Trp Asn Pro Pro Ser His Pro Ile Tyr Asn Pro Ser Arg Met Asn 130 135 140 Leu Arg Gly Leu Leu Ser Arg Gln Ser His Leu Asp Pro Ile Leu Arq 145 150 155 160 Tyr Gly Phe Pro Leu His Leu Thr Ile Tyr Arg Pro Ser Arg Asn Ser 165 170 175 Pro Pro Pro Arg Asn Arg Ile Lys Gln Pro Asn Arq Ile Lys 180 185 190 Leu Arg Cys Arg 195

<210> 223

<211> 174

<212> PRT

<213> Homo sapiens

<400> 223

Glu Gly Pro Thr Pro Val Ser Ala Leu Leu Leu Pro Ser Ala Ile His 1 5 10 15 Ser Val Val Ala Gly 'Ile Ser Thr Ile Phe Leu Leu Val Arg Phe 20 25 30 Pro Leu Thr Thr Asn Asn Asn Phe Ile Leu Thr Thr Ile Leu Cys Leu 35 40 45 Ala Thr Thr Leu Phe Thr Ala Ile Cys Ala Leu Thr 55 60 Asp Ile Lys Lys Ile Ile Ala Phe Ser Thr Ser Gly Ser Gln Leu Leu 65 75 80 Ile Val Thr Leu Gly Ile Asn Gln Pro His Leu Ala Phe Leu 90 Ile Cys Thr His Ala Phe Phe Lys Ala Ile Leu Phe Ile Cys Ser Gly 100 105 110 Ser Ile Ile His Ser Leu Ala Asp Glu Gln Asp Ile Arg Lys Ile 120 125 Asn Ile Thr Ile Ile Pro Phe Lys Thr Ser Ser Cys Val Leu Ile Gly 130 135 140 Ser Leu Ala Leu Thr Gly Ile Pro Phe Leu Thr Gly Phe Tyr Ser Lys 145 150 155 160

Asp Leu Ile Ile Glu Ala Ile Asn Thr Cys Asn Thr Asn Ala 165 170 <210> 224 <211> 123 <212> PRT <213> Homo sapiens <400> 224 Phe Leu Lys Thr Thr Ala Leu Ile Ile Ser Val Leu Gly Phe Leu Ile 10 Glu Ala Leu Leu Asn Asn Leu Thr Ile Lys Leu Ser Ile Asn Lys Ala 20 25 Tyr Ser Phe Thr Pro Ser Ser Leu Leu Gly Phe Phe Asn Pro Ser Ile 35 40 45 Asn Ile His Arg Ile Thr Pro Ile Lys Ser Leu Leu Ser Leu Lys Thr 55 60 Ser Leu Leu Asp Leu Ile Trp Leu Glu Lys Thr Ile Pro Lvs 65 70 80 Thr Ser Ser Thr Leu His Thr Ile Thr Thr Asn Leu Thr Thr Asn Gln 85 90 Lys Gly Ile Lys Tyr Phe Ile Ser Leu Leu Phe Leu Ile Asn Ile Ile 100 105 110 Leu Ile Ile Ile Leu Tyr Ser Ile Asn Leu Glu 115 120 <210> 225 <211> 129 <212> PRT <213> Homo sapiens <400> 225 Asn Met Leu Leu Ala Glu Val Arg Ile Ser Met Val Ile Arg Asn Ser 1 10 15 Gly Ser Tyr Leu Met Asn Arg Leu Met Phe Glu Cys Ile Tyr 25 30 His Glu Glu Asn Cys Ile Ile Asp His Val Thr Lys Arq Ala Thr Asp 35 40 45 Val Asn Arg Ile Glu Lys Lys Ser Val Leu Lys Leu Ile Leu Ser 55 Ile Glu Thr Phe Met Val Gln Cys Gln Val Val Ile Ile Tyr Ser Ile 65 70 75 80 Leu Leu Trp Lys Asn Ile Asn Arg Gly Lys Arg Ile Glu Leu Met Lys 85 90 Asn Leu Ile Asp Val Val Val Ser Tyr Gly Lys Leu Met Cys Leu Ile 100 105 110

Arg Phe Asp Ile Glu Ile Arg Ile Gly Asp Ser Arg Arg Met Lys Ile

120

125

Lys

<210> 226

<211> 83

<212> PRT

<213> Homo sapiens

<400> 226

Phe 1	Phe	Phe	Phe	Phe 5	Phe	Phe	Ala	Ile	Gln 10	Met	Asn	Val	Tyr	Phe 15	Leu
Asn	Pro	His	Arg 20	Val	Arg	Ala	Glu	Leu 25	Arg	Asp	Ala	Trp	His 30	Ser	Ile
Ser	His	Pro 35	Gly	Ser	Leu	Pro	Arg 40	Ser	Phe	Phe	Phe	Ala 45	Gly	Ser	Ile
Leu	Asp 50	Leu	Tyr	His	Phe	Leu 55	Gln	Arg	Gln	Tyr	Pro 60	Glu	Trp	Gln	Ser
Gln 65	Val	Tyr	Phe	Lys	Val 70	Gly	Val	Phe	Ser	Gly 75	Ser	Arg	Gly	Asp	Trp 80

Ile Pro Ser

<210> 227

<211> 122

<212> PRT

<213> Homo sapiens

<400> 227

Ser 1	Met	Met	Leu	Phe 5	Lys	Val	Leu	Val	Ile 10	Thr	Val	Phe	Cys	Gly 15	Leu
Thr	Val	Ala	Phe 20	Pro	Leu	Ser	Glu	Leu 25	'Val	Ser	Ile	Asn	Lys 30	Glu	Leu
Gln	Asn	Ser 35	Ile	Ile	Asp	Leu	Leu 40	Asn	Ser	Val	Phe	Asp 45	Gln	Leu	Gly
Ser	Tyr 50	Arg	Gly	Thr	Lys	Ala 55	Pro	Leu	Glu	Asp	Tyr 60	Thr	Asp	Asp	Asp
Leu 65	Ser	Thr	Asp	Ser	Glu 70	Gln	Ile	Met	Asp	Phe 75	Thr	Pro	Ala	Ala	Asn 80
Lys	Gln	Asn	Ser	Glu 85	Phe	Ser	Thr	Asp	Val 90	Glu	Thr	Val	Ser	Ser 95	Gly
Phe	Leu	Glu	Glu 100	Phe	Thr	Glu	Asn	Thr 105	Asp	Ile	Thr	Val	Lys 110	Ile	Pro
Leu	Ala	Gly	Asn	Pro	Val	Ser	Pro	Thr	Ser						

120

<210> 228

<211> 62

<212> PRT

<213> Homo sapiens

115

<400> 228

Thr 1	Ser	Thr	Thr	Val 5	Phe	Phe	Phe	Pro	Phe 10	His	Leu	Ser	Leu	Pro 15	Val
Gly	Cys	Thr	Val 20	Cys	Ser	His	Ala	Leu 25	Cys	Ile	Asn	Ile	Leu 30	Glu	Ile
Tyr	Arg	Ser 35	Val	Leu	Tyr	Phe	Leu 40	Tyr	Cys	Trp	Ile	Leu 45	Ile	Ile	Lys
Thr	Phe 50	Thr	Arg	Val	Leu	Asn 55	Lys	Ser	Ser	Leu	Thr 60	Arg	Lys		

<210> 229

<211> 99

<212> PRT

<213> Homo sapiens

<400> 229

Ala 1	Arg	Pro	Cys	Met 5	Asn	Ser	Thr	Lys	Ala 10	Leu	Pro	His	Gly	Arg 15	Glu
His	Thr	Arg	Leu 20	Lys	Met	Leu	Ser	Tyr 25	Leu	Lys	Asn	Lys	Met 30	Cys	Lys
Ser	Ser	Gly 35	Trp	His	Lys	Thr	Lys 40	Val	Asn	Ala	Ser	Trp 45	Gly	Thr	Phe
Leu	Arg 50	Gly	Leu	Ala	Glu	Cys 55	Val	Asn	Ile	Ile	Asp 60	Phe	Cys	Leu	Cys
Tyr 65	Met	Thr	Ser	Val	Thr 70	Ser	Leu	Lys	Ile	Cys 75	Thr	Ile	Gln	Phe	Gln 80
Leu	Trp	Ile	Thr	Ser 85	Val	Asp	Leu	Cys	Glu 90	Gly	Phe	Tyr	Leu	Суs 95	Arg

Met Gly Val

<210> 230

<211> 63

<212> PRT

<213> Homo sapiens

<400> 230

Gly 1	Glu	Leu	Gln	Lys 5	Ser	Ser	His	Tyr	His 10	Pro	Pro	Glu	Leu	Phe 15	Glu
Met	Ile	Phe	Phe 20	Val	His	Phe	Gly	Cys 25	Ser	Ile	Gly	Gly	Arg 30	Ile	Tyr
Tyr	Asn	Met 35	Asp	His	Leu	Tyr	Phe 40	Cys	Ile	Tyr	Leu	Phe 45	Ile	Thr	Arg
Pro	Gln 50	Pro	Gln	Ser	Ser	Phe 55	Ser	Pro	Ser	Thr	Ser 60	Leu	Cys	Leu	

<210> 231

<211> 64

<212> PRT <213> Homo sapiens

<400> 231

Ile Asn Lys Tyr Arg Ser Arg Asp Asp Pro Tyr Tyr Ser Ile Phe Tyr

10
15

His Gln Tyr Cys Ser Gln Asn Val Gln Lys Lys Ser Gln Phe Ile Thr 20 25

Gln Glu Thr Asp Asp Gly Trp Phe Asn Val Ile His Leu Lys Asp Cys 35 40 45

Gly Arg Ala Asn Ser Thr His Cys Ile Val Cys Ala Tyr Gly Gly Leu 50 55 60

<210> 232

<211> 88

<212> PRT

<213> Homo sapiens

<400> 232

Pro Leu Phe Cys Ala Ile Leu Lys Thr Cys Thr Phe Tyr Phe Ser Asp 1 5 10 15

Ser Leu Thr Phe Leu Ile Glu Cys Val Leu Tyr His Ala Val Met Leu 20 25 30

Trp Tyr Ser Tyr Arg Val Leu Pro Ile Leu Lys Thr Cys His Phe 35 40

Pro Lys Arg Ser Phe Asp Ser Ala Leu Glu Val Leu His Lys Leu Lys 50 55 60

Ser Ser Ile Asn Met Lys Gly Gly Asn Thr Cys Gly Asn Ile Tyr 65 70 75 80

Ser Gln Val Thr Ser Leu Tyr Ile 85

<210> 233 <211> 161

<211> 161 <212> PRT

<213> Homo sapiens

<400> 233

Ala Ser Thr Ile Met Asp Leu Leu Phe Gly Arg Arg Lys Thr Pro Glu
1 5 10 15

Glu Leu Leu Arg Gln Asn Gln Arg Ala Leu Asn Arg Ala Met Arg Glu
20 25 30

Thr Leu Asp Arg Glu Arg Gln Lys Leu Glu Gln Glu Lys Ile Lys Ile 35

Ala Asp Ile Lys Lys Ala Gln Gly Met Lys Gln Met Asp Ala Val Arg 50 55 60

Ile Met Ala Lys Asp Leu Val Arg Thr Arg Arg Tyr Val Arg Lys Phe 65 70 75 80

Arg Ala Asn Ile Gln Ala Val Ser Leu Lys Val Leu Met Ile Gln Thr 85 90 Ser Asn Asn Ser Met Ala Gln Ala Met Gly Val Leu Lys Lys Thr Lys 100 105 110 Ala Met Gly Thr Met Gln Leu Gln Asn Arg Lys Leu Pro Ile Gln Lys 120 125 Ile Met Glu Phe Glu Arg Gln Ala Glu Ile Met Asp Met Lys Glu 130 135 140 Glu Arg Ile Glu Leu Leu His Leu Met Ile Pro Trp Val Leu Gly Lys 145 150 155 160 Phe <210> 234 <211> 120 <212> PRT <213> Homo sapiens <400> 234 Arg Arg Val Arg Thr Lys Ser Phe Ala Met Met Arg Thr Ala Ser Ile 10 15 Trp Pro Cys Leu Ala Ile Phe Leu Met Ser Ala Phe Met Ile Phe Ser 30 Trp Val Ser Ser Phe Cys Arg Ser Arg Ser Ser Ser Arg Met Ala Arg 35 40 45 Phe Arg Ala Leu Trp Phe Cys Arg Ser Ser Ser Ser Gly Val Phe Arg 50 55 60 Ser Pro Asn Trp Arg Met Met Val Glu Ala His Asn Arg Gln Ala Gly 65 70 75 80 Gly Thr Thr Arg Phe Arg Phe Arg Val Asp Thr Leu Leu Phe Leu 85 90 95 Thr Lys Ala Pro Arg Ser Pro Thr Cys Pro Pro Ser Cys Arg Arg 105 110 Arg Arg Arg Phe Arg Gly Arg Val 115 <210> 235 <211> 121 <212> PRT <213> Homo sapiens <400> 235 Pro Gln Asn Pro Arg Asp His Gln Met Gln Gln Lys Leu Phe Asn Pro 10 Leu Leu Leu His Ile His Asp Leu Cys Leu Pro Leu Lys Leu His His 20 25 30

Asp Leu Leu Asp Leu Gly Gln Leu Gln Leu Ser Val His Gly Ala

<212> PRT

35 40 45 Leu Thr His Gly Gly Asp Leu Leu Cys His Arg Val Val Gly Leu 50 55 60 Glu Cys Leu Asp Leu Glu Gly His Ser Leu Asp Val Gly Gln Pro His 65 70 75 80 Ile Tyr Lys Leu Ala His Ala Pro Gly Ala His Gln Val Phe Cys His 95 85 90 Asp Ser Ile His Leu Ala Leu Leu Gly His Ala Asn Leu Leu Asn Val 105 Asp Phe Leu Leu Leu Gly Leu 115 120 <210> 236 <211> 180 <212> PRT <213> Homo sapiens <400> 236 Thr Lys Arg Ser Val Lys Asp Ala Ala Lys Lys Gly Gln Lys 1 10 Val Val Ala Lys Glu Met Cys Ile Leu Ile Arg Ser Lys Ala Arg Val 20 25 30 Ser Lys Leu Tyr Ala Ser Lys Ala His Met Asn Ser Val Leu Met Gly 40 Ala Gly Leu Val Ser Lys Asn Gln Ala Leu Arg Val Leu Gln 50 55 60 Ser Val Met Lys Ala Met Gln Ser Leu Val Lys Ile Pro 80 Ile Gln Thr Met Arg Glu Ser Glu Ala Leu Lys Met Met Lys Ala Gly 85 90 95 Ile Glu Glu Met Leu Glu Asp Thr Glu Ser Ile Phe Met Asp Asp Gln 100 105 110 Glu Glu Met Glu Glu Glu Glu Ala Met Glu Ile Asp Arg Ile Leu Phe 115 120 125 Glu Ile Thr Ala Gly Ala Leu Gly Lys Ala Pro Ser Lys Val Thr Asp 130 135 Glu Ala Leu Pro Glu Pro Pro Pro Gly Ala Met Ala Ala Ser Glu Asp 145 150 155 160 Glu Glu Glu Glu Ala Leu Glu Ala Glu Gly Met Gln Ser Arg Leu Ala 165 170 175 Thr Leu Ser Arg 180 <210> 237 <211> 111

<213> Homo sapiens

<400> 237

Leu 1	Met	Pro	Phe	Gln 5	Ser	Gln	Asn	Leu	Gln 10	Glu	Arg	Trp	Leu	Pro	Gln
Arg	Met	Arg	Gly 20	Arg	Arg	Lys	Arg	Leu 25	Trp	Arg	Pro	Cys	Ser 30	Pro	Gly
Trp	Pro	His 35	Ser	Ala	Ala	Arg	Gly 40	Суѕ	Leu	Pro	Arg	Trp 45	Val	Cys	Thr
His	Ser 50	Ser	Gln	Glu	Leu	Pro 55	Phe	Tyr	Val	Ser	Leu 60	Ala	Leu	His	Leu
Cys 65	Cys	Glu	Asp	Tyr	His 70	Phe	Gly	Glu	Gly	Ser 75	Val	Cys	Leu	Phe	Ser 80
Phe	Ser	Ala	Gln	Val 85	Leu	Gly	Ser	Gln	Arg 90	Asp	Cys	Ser	Tyr	Lys 95	Ser
Gly	Ile	Asn	Lys 100	Cys	Ile	Ile	Phe	Arg 105	Lys	Lys	Lys	Lys	Lys 110	Lys	

<210> 238

<211> 103 <212> PRT

<213> Homo sapiens

<400> 238

Lys 1	Ile	Cys	Glu	Arg 5	Cys	Cys	Gln	Glu	Gly 10	Pro	Glu	Gly	Cys	Leu 15	His
Ser	Ser	Gly	Gln 20	Gly	Asp	Asp	Gln	Val 25	Lys	Glu	Gly	Cys	Glu 30	Gln	Ala
Val	Cys	Ile 35	Gln	Ser	Thr	His	Glu 40	Leu	Ser	Ala	His	Gly 45	Asp	Glu	Glu
Pro	Ala 50	Arg	Gly	Leu	Ala	Ser 55	Gly	Trp	Phe	Pro	Ala 60	Glu	Glu	His	Arg
Ser 65	Asp	Glu	Gly	His	Ala 70	Lys	Ser	Cys	Glu	Asp 75	Ser	Arg	Asp	Ser	Gly 80
His	His	Glu	Gly	Val 85	Val	Gln	Arg	Asn	Asp 90	Glu	Gly	Trp	Asp	His 95	Arg
Gly	Asp	Val	Ara	Glv	His	Phe									

<210> 239

<211> 351 <212> PRT

<213> Homo sapiens

100

<400> 239

Thr Trp Cys Thr Thr Met Leu Ala Ala Arg Leu Val Cys Leu Arg 5 10

Thr	Leu	Pro	Ser 20		Val	Phe	His	Pro 25	Ala	Phe	Thr	Lys	Ala 30	Ser	Pro
Val	Val	Lys 35		Ser	Ile	Thr	Lys 40	Asn	Gln	Trp	Leu	Leu 45	Thr	Pro	Ser
Arg	Glu 50	-	Ala	Thr	Lys	Thr 55	Arg	Ile	Gly	Ile	Arg 60	Arg	Gly	Arg	Thr
Gly 65		Glu	Leu	Lys	Glu 70	Ala	Ala	Leu	Glu	Pro 75	Ser	Met	Glu	Lys	Ile 80
Phe	Lys	Ile	Asp	Gln 85	Met	Gly	Arg	Trp	Phe 90	Val	Ala	Gly	Gly	Ala 95	Ala
Val	Gly	Leu	Gly 100	Ala	Leu	Cys	Tyr	Tyr 105	Gly	Leu	Gly	Leu	Ser 110	Asn	Glu
Ile	Gly	Ala 115	Ile	Glu	Lys	Ala	Val 120	Ile	Trp	Pro	Gln	Tyr 125	Val	Lys	Asp
Arg	Ile 130	His	Ser	Thr	Tyr	Met 135	Tyr	Leu	Ala	Gly	Ser 140	Ile	Gly	Leu	Thr
Ala 145	Leu	Ser	Ala	Ile	Ala 150	Ile	Ser	Arg	Thr	Pro 155	Val	Leu	Met	Asn	Phe 160
Met	Met	Arg	Gly	Ser 165	Trp	Val	Thr	Ile	Gly 170	Val	Thr	Phe	Ala	Ala 175	Met
Val	Gly	Ala	Gly 180	Met	Leu	Val	Arg	Ser 185	Ile	Pro	Tyr	Asp	Gln 190	Ser	Pro
-	Pro	Lys 195	His	Leu	Ala	Trp	Leu 200	Leu	His	Ser	Gly	Val 205	Met	Gly	Ala
Val	Val 210	Ala	Pro	Leu	Thr	Ile 215	Leu	Gly		Pro	Leu 220	Leu	Ile	Arg	Ala
Ala 225	Trp	Tyr	Thr	Ala	Gly 230	Ile	Val	Gly	_	Leu 235	Ser	Thr	Val	Ala	Met 240
Cys		Pro		Glu 245	Lys	Phe	Leu	Asn	Met 250	Gly	Ala	Pro	Leu	Gly 255	Val
Gly	Leu	_	Leu 260	Val	Phe		Ser	Ser 265	Leu	Gly	Ser	Met	Phe 270	Leu	Pro
Pro	Thr	Thr 275	Val		Gly	Ala	Thr 280	Leu	Tyr	Ser	Val	Ala 285	Met	Tyr	Gly
Gly	Leu 290	Val	Leu	Phe	Ser	Met 295	Phe	Leu	Leu	Tyr	Asp 300	Thr	Gln	Lys	Val
Ile 305	Lys	Arg	Ala	Glu	Val 310	Ser	Pro	Met	Tyr	Gly 315	Val	Gln	Lys	Tyr	Asp 320
Pro		Asn	Ser	Met 325	Leu	Ser	Ile	Tyr	Met 330	Asp	Thr	Leu	Asn	Ile 335	Phe
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90

Thr Val Leu Lys Tyr Lys Cys His Thr Met Lys Lys Leu Ser

95

Met

85

Lys

100 105 110 Thr Leu Leu Thr Glu Lys Lys Glu Gly Glu Glu Asn Ile Gly 115 120 125 Gln Ile . Phe Gly Val Glu Trp Leu Lys Asp Asn Asp Ser Tyr Arg Pro 130 135 140 Met Ile Cys Asn Phe Leu His Glu Asn Glu Asp Glu Glu Val Val 145 150 155 160 Glu Glu Glu Glu Ala Ala Pro Ser Leu Leu Glu Ile Gln Ser Asp Lys 170 165 Arg Phe Lys Pro Gly Phe Val Glu Pro Gly Glu Pro Ile Met Asn His 185 180 190 Ala Pro Trp Glu 195 <210> 242 <211> 156 <212> PRT <213> Homo sapiens <400> 242 Pro Pro Ala Pro Ala Leu Arg His Arg Glu Thr Arg Arg Pro Val Ala 1 5 10 Gly Ala Arg Ser Ser Leu His Val Gly Thr Gly Ala Leu His Pro 20 25 30 Arg Phe Ala Gly Ser His Leu Glu Trp Gln Lys Gln Phe Ala Arg 35 40 45 Gly Ala Asn 'Lys Leu Leu Arg Asp Gly Gln Glu Pro Gly Ala Leu 55 60 Ala Gly Gly Gly Ala Arg Thr Gln Asp Ser Arg Trp Pro Val Thr Ara 65 75 80 Arg Gly Ala Ala Gly Pro Trp Arg Arg Arg Arg Thr Ser Gly Thr Glu Gln Lys Thr Arg Arg Ser Phe Arg Lys Arg Ser Trp Trp Trp 100 105 110 Gln Gln Tyr Glu Ile Thr Ser Ser Gln Asn Leu Leu Asn Val Lys Ile 115 120 125 Asn Ala Arq Phe Trp Ala Leu Thr Leu Arg Gly Pro Phe Cys Lys Trp 130 135 140 Thr Gly Ser Met Thr Ala Val Ser Leu Leu Lys Leu

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145

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135

Leu Trp Glu Asp Glu Thr Leu Gly Cys Cys Lys Thr Ser Phe

140

145 150 155 <210> 245 <211> 103 <212> PRT <213> Homo sapiens <400> 245 Ala Thr Leu Pro Asp Ala Leu Pro Pro Ala Thr Lys Phe Phe Leu Lys 10 Ala Phe Phe Asp Ser Leu Pro Ser Pro ${\tt Gln}$ Ile Ser Leu Tyr Tyr Ile 20 25 Phe Ala Val Phe Pro Ser Ser Ser Gly Thr Ala Ile Ser Gly Ala Val 40 45 Ile Val Gly Tyr · Val Gly Met Ser Asn Ser Met Ser Asn Ser Tyr Phe 55 60 Arg Trp Ile Arg Ser Tyr Gln His Phe Pro Asn His Arg Val Pro Ser 65 70 75 80 Asn Gln Leu Asp Ser Ser Arg Ser Leu Ser Ala Phe Leu 85 90 Thr Ile Arg Asp Ser Tyr Arg 100 <210> 246 <211> 285 <212> PRT <213> Homo sapiens <400> 246 Ala Val Arg Arg Gly Ala Leu Ser Leu Ser Val Gly Ala Ala Cys . 10 Gly Val Ala Trp Leu Gln Arg Arg Arg Gln Asp Ser Gly Thr 20 30 Phe Ser Gly Ser Thr Glu Glu Arg Ala Ala Pro Phe Ser Leu Glu Tyr 35 45 Val Arg Phe Leu Lys Asn Glu Gly Pro Lys Gln Tyr Ile Ser Phe 55 60 Asp Ile Pro Ile Tyr Ala Asp Phe Lys Val His Asp Met Val Val 65 70 75 80 Val Arg Trp Asn Ala Lys Pro Ser Met Glu Ile Ala Thr Asp 90 Leu Asn Pro Ile Lys Gln Asp Val Lys Gly Lys Lys Tyr Leu Arg Val 100 105 110 Ala Asn Leu Phe Pro Tyr Lys Gly Tyr Ile Trp Gly Asn Tyr Ala Ile 115 120 125 Gln Thr Trp Glu Asp Pro Gly His Asn Asp Thr Gly Cys Lys His 130 135 140

Cys 145	Gly	Asp	Asn	Asp	Pro 150	Ile	Asp	Val	Cys	Glu 155	Ile	Gly	Ser	Lys	Val 160
Cys	Ala	Arg	Gly	Glu 165	Ile	Ile	Gly	Val	Lys 170	Val	Leu	Gly	Ile	Leu 175	Ala
Met	Ile	Asp	Glu 180	Gly	Glu	Thr	Asp	Trp 185	Lys	Val	Ile	Ala	Ile 190	Asn	Val
Asp	Asp	Pro 195	Asp	Ala	Ala	Asn	Tyr 200	Asn	Asp	Ile	Asn	Asp 205	Val	Lys	Arg
Leu	Lys 210	Pro	Gly	Tyr	Leu	Glu 215	Ala	Thr	Val	Asp	Trp 220	Phe	Arg	Arg	Tyr
Lys 225	Val	Pro	Asp	Gly	Lys 230	Pro	Glu	Asn	Glu	Phe 235	Ala	Phe	Asn	Ala	Glu 240
Phe	Lys	Asp	Lys	Asp 245	Phe	Ala	Ile	Asp	Ile 250	Ile	Lys	Ser	Thr	His 255	Asp
His	Trp	Lys	Ala 260	Leu	Val	Thr	Lys	Lys 265	Thr	Asn	Gly	Lys	Arg 270	Ile	Met
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Tyr

<210> 249

<211> 98

<212> PRT

<213> Homo sapiens

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Arg Phe

<210> 250

<211> 158

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Asp Val Glu Ile Asn Lys Ile Ile Ser Thr Thr Ala Ser Lys Thr Glu 50 55 Thr Ile Val Pro Ser Lys Ser Leu Ser Ser Ser Leu Asp Asp Glu 65 70 75 80 Val Met Glu Glu Val Lys Lys Cys Lys Arg Leu Gln Gly Glu Val Gln 85 90 95 Glu Glu Asn Lys Gln Phe Lys Glu Glu Gly Arg Leu Arg Asp Leu Arg 100 105 110 Thr Val Gln Ser Lys Asn Ser Ile Ser Met Arg Pro Ala Leu Ala Pro 115 120 125 Gly Lys Glu Glu Gly Arg Leu Ser Thr Leu Leu Ala Val Val Leu 130 Phe Ile Val Gly Val Ile Ile Gly Lys Ile Ala Leu 145 150 155 <210> 251 <211> 112 <212> PRT <213> Homo sapiens <400> 251 ~ Val Asn Lys Ala Leu Pro Phe Ile Ser Lys Ala Leu Gly Gln Ser Val 1 5 Thr Arg Ser Leu Met Thr Ser Thr Ser Asp Asn Leu Ala Ala Thr Val 20 25 30 Trp Phe Leu Ala Ser Asp Ser Val His Gln Ser Gln Gly Ala 40 Leu Thr Glu Asp Thr Glu Ser Asp Arg Ser Leu Gly Arg Glu 50 55 60 Ala Leu Leu Cys Gly Ala Asp Gly Arg Thr Pro Gln 65 75 80 Lys Gln His Gln Gly Gln Leu Pro Leu Gly Gln Ala Arg Lys Gly Val 85 95 Ile Leu Arg Glu Val Ile Gln His His Val Pro Arg Pro Thr 100 105 110 <210> 252 <211> 135 <212> PRT <213> Homo sapiens <400> 252 Ser Lys Gly Cys Ser Ile Thr Glu Thr Val Thr Val Asp Pro Gly Ser 10 Ile Pro Gln Gly Ile Leu Leu Gly Leu Thr Tyr Arg Arg Ala Val Val 20 25 30 Phe Thr Leu Lys His Thr Phe Leu Ser Asp Gly Phe Arg Asn Leu Arg

35 40 45 Thr Thr Phe Val Val Ser Val Lys Gly Pro Leu Asn Leu Arg Ser Val 50 55 Gly Gly Ser Thr Arg Arg Ile Cys Ser Trp Ser Ser Pro Pro Leu Arg 65 75 80 Glu Arg Thr Pro Ser Arg Gln Arg Ala Arg Gly Gly Gly Leu Ala 85 90 Gly Gly Gly Gly Arg Trp Arg Glu Gly Arg Gly Ser Glu Phe Ala 105 Ser Thr Thr Leu Leu Phe Leu Val Arq Leu Cys Phe Cys Leu Trp Gln 115 120 125 Ile Cys Phe Gln Ile Asp Phe 130 135 <210> 253 <211> 189 <212> PRT <213> Homo sapiens <400> 253 Ser Met Gln Ser Ala Val Ser Phe Phe Phe Phe Ser Leu Asp Gln Lys 10 15 Lys Cys Pro Ile Val Leu Thr Ile Ser Leu Val Trp Pro Thr Val Thr 25 Ile Phe Leu Cys Val Gln Arg His Ile Gly Phe Ala Phe Asn Asp 40 Leu Glu Asn Thr Leu Arg Ile Lys Thr Asn Cys Ser Ala Thr Gly 50 Val Val Tyr Gln Ile Tyr Ile Thr Ser Gln Leu His Arg Cys Ile Glu 65 70 75 80 Phe Met Ser Phe Lys Ile Asn Lys Glu Leu Phe Phe Gly Leu Cys Phe 85 90 95 Arg Lys Ser Ser Ile Val Gln Ser Asn Leu Val Asn Val Ile Leu Ile 100 105 110 Leu Asn Phe Ile Cys Cys Cys Tyr Leu Leu Lys Tyr Asp 120 125 Phe Arg Leu Leu Ile Pro Leu Ile Gln Glu Met Pro Arg Gly Ile Pro 130 135 140 Trp Gly Gly Ala Ser Asn Tyr Ser Val Asn Phe Ser Ser Phe Thr Phe 145 160 Ala Met Ala Asn Ile Glu Phe Phe Leu Ser Leu Val Arg Gln Leu Leu 165 170 175 Glu Phe Phe Ile Leu Thr Ile Leu Ser His Gly Ile 180 185

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Arg	His	Arg 35	Pro	Pro	Pro	Pro	Ala 40	Ser	Lys	Pro	Pro	Pro 45	Ala	Leu	Arg
Cys	Leu 50	Ser	Asp	Gly	Val	Arg 55	Leu	Arg	Gly	His	Gly 60	Glu	Asp	Glu	Gln
Ile 65	Leu	Val	Leu	Asp	Pro 70	Pro	Thr	Asp	Leu	Lys 75	Phe	Lys	Gly	Pro	Phe 80
Thr	Asp	Val	Val	Thr 85	Thr	Asn	Leu	Lys	Leu 90	Arg	Asn	Pro	Ser	Asp 95	Arg
Lys	Val	Cys	Phe 100	Lys	Val	Lys	Thr	Thr 105	Ala	Pro	Arg	Arg	Tyr 110	Cys	Val
Arg	Pro	Asn 115	Ser	Gly	Ile	Ile	Asp 120	Pro	Gly	Ser	Thr	Val 125	Thr	Val	Ser
Val	Met 130	Leu	Gln	Pro	Phe	Asp 135	Tyr	Asp	Pro	Asn	Glu 140	Lys	Ser	Lys	His
Lys 145	Phe	Met	Val	Gln	Thr 150	Ile	Phe	Ala	Pro	Pro 155	Asn	Thr	Ser	Asp	Met 160
Glu	Ala	Val	Trp	Lys 165	Glu	Ala	Lys	Pro	Asp 170	Glu	Leu	Met	Asp	Ser 175	Lys
Leu	Arg	Cys	Val 180	Phe	Glu	Met	Pro	Asn 185	Glu	Asn	Asp	Lys	Leu 190	Asn	Asp
Met	Glu	Pro 195	Ser	Lys	Ala	Val	Pro 200	Leu	Asn	Ala	Ser	Lys 205	Gln	Asp	Gly
Pro	Met 210	Pro	Lys	Pro	His	Ser 215	Val	Ser	Leu	Asn	Asp 220	Thr	Glu	Thr	Arg
Lys 225	Leu	Met	Glu	Glu	Cys 230	Lys	Arg	Leu	Gln	Gly 235	Glu	Met	Met	Lys	Leu 240
Ser	Glu	Glu	Asn	Arg 245	His	Leu	Arg	Asp	Glu 250	Gly	Leu	Arg	Leu	Arg 255	Lys
Val	Ala	His	Ser 260	Asp	Lys	Pro	Gly	Ser 265	Thr	Ser	Thr	Ala	Ser 270	Phe	Arg
Asp	Asn	Val 275	Thr	Ser	Pro	Leu	Pro 280	Ser	Leu	Leu	Val	Val 285	Ile	Ala	Ala
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<211> 69

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<213> Homo sapiens

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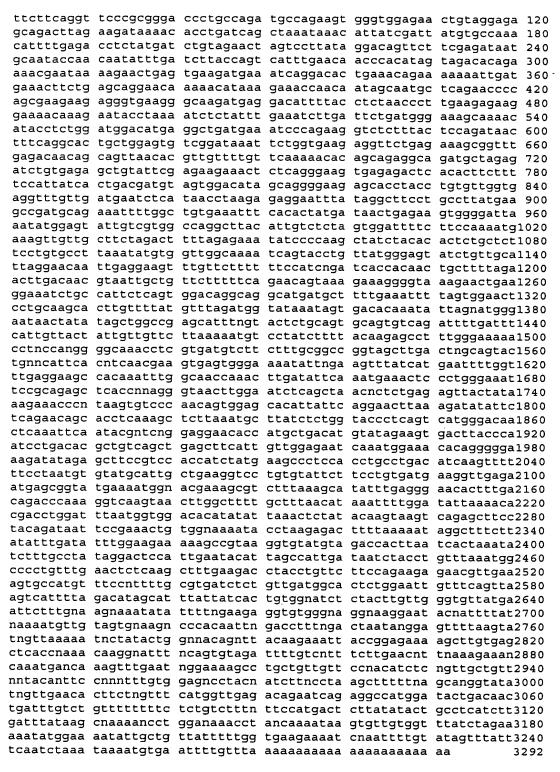
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  aagggagtat egteetgaat atgaaegtet gaaaaaatea etggeeaaeg eagagageea 180
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<210> 263

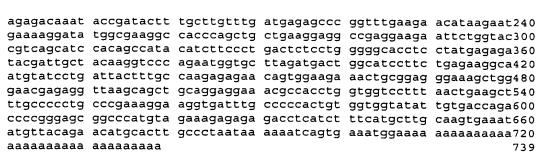
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<212> DNA

<213> Homo sapiens

<400> 263

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<210> 265 <211> 1020

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 268

<211> 900 <212> DNA

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<211> 1145

<212> DNA

<213> Homo sapiens

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<210> 273 <211> 1586 <212> DNA <213> Homo sapiens

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<211> 144

<212> PRT

<213> Homo sapiens

<400> 274

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Trp	Leu	Ser 35	Ser	Val	Thr	Leu	Trp 40	Ser	Met	Ser	Ser	Val 45	Ser	Leu	Ser
Ala	Ser 50	Asn	Val	Gly	Arg	Val 55	Arg	Ile	Lys	Ser	Glu 60	Gly	Cys	Ser	Thr
Gly 65	Asp	Lys	Leu	Ser	Leu 70	Gly	Val	Pro	Ala	Ser 75	Lys	Ala	Thr	Glu	Pro 80
Ile	Ser	Phe	Arg	Arg 85	Arg	Ser	Ser	Cys	Ser 90	Leu	Cys	Cys	Trp	Leu 95	Ser
Ala	Leu	Ala	Ser 100	Asp	Phe	Phe	Arg	Arg 105	Ser	Tyr	Ser	Gly	Arg 110	Tyr	Ser
Leu	Ser	Tyr 115	Ser	Ser	Ala	Ala	Leu 120	Val	Thr	Cys	Thr	Lys 125	Ser	Ser	Ser
Asn	Pro 130	Val	Pro	Arg	Thr	Ala 135	Glu	Thr	Pro	Thr	Thr 140	Leu	Ser	Glu	Leu

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<211> 143

<212> PRT

<213> Homo sapiens

<400> 275

Met Ser Val Leu Leu Glu Phe Asp Tyr Ser Ser Leu Arg Val Val 1 10 15 Val Ser Ala Val Leu Gly Thr Gly Leu Asp Glu Leu Phe Val Gln Val 20 30

Pro Leu Lys Pro

Thr

Thr	Ser	Ala 35	Ala	Glu	Glu	Tyr	Glu 40	Arg	Glu	Tyr	Arg	Pro 45	Glu	Tyr	Glu
Arg	Leu 50	Lys	Lys	Ser	Leu	Ala 55	Asn	Ala	Glu	Ser	Gln 60	Gln	Gln	Arg	Glu
Gln 65	Leu	Glu	Arg	Leu	Arg 70	Lys	Asp	Met	Gly	Ser 75	Val	Ala	Leu	Asp	Ala 80
Gly	Thr	Pro	Lys	Asp 85	Ser	Leu	Ser	Pro	Val 90	Leu	His	Pro	Ser	Asp 95	Leu
Ile	Leu	Thr	Arg 100	Pro	Thr	Leu	Glu	Ala 105	Asp	Ser	Asp	Thr	Asp 110	Asp	Ile
Asp	His	Arg 115	Val	Thr	Glu	Glu	Ser 120	His	Glu	Glu	Pro	Ala 125	Phe	Gln	Asn
Phe	Met 130	Gln	Glu	Ser	Met	Ala 135	Gln	Tyr	Trp	Lys	Arg 140	Asn	Asn	Lys	
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Pro	Gly	Pro	Pro 20	Gln	Ala	Pro	Pro	Gly 25	Leu	Pro	Gly	Gln	Ala 30	Ser	Leu
Leu	Gln	Ala 35	Ala	Pro	Gly	Ala	Pro 40	Arg	Pro	Ser	Ser	Ser 45	Thr	Leu	Val
Asp	Glu 50	Leu	Glu	Ser	Ser	Phe 55	Glu	Ala	Cys	Phe	Ala 60	Ser	Leu	Val	Ser
Gln 65	Asp	Tyr	Val	Asn	Gly 70	Thr	Asp	Gln	Glu	Glu 75	Ile	Arg	Thr	Gly	Val 80
Asp	Gln	Cys	Ile	Gln 85	Lys	Phe	Leu	Asp	Ile 90	Ala	Arg	Gln	Thr	Glu 95	Cys
Phe	Phe	Leu	Gln 100	Lys	Arg	Leu	Gln	Leu 105	Ser	Val	Gln	Lys	Pro 110	Glu	Gln
Val	Ile	Lys 115	Glu	Asp	Val	Ser	Glu 120	Leu	Arg	Asn	Glu	Leu 125	Gln	Arg	Lys
Asp	Ala 130	Leu	Val	Gln	Lys	His 135	Leu	Thr	Lys	Leu	Arg 140	His	Trp	Gln	Gln
Val 145	Leu	Glu	Asp	Ile	Asn 150	Val	Gln	His	Lys	Lys 155	Pro	Ala	Asp	Ile	Pro 160
Gln	Gly	Ser	Leu	Ala 165	Tyr	Leu	Glu	Gln	Ala 170	Ser	Ala	Asn	Ile	Pro 175	Ala

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Arg	Lys	Glu	Cys 20	Val	Ala	Asn	Leu	Thr 25	His	Gln	Pro	Thr	His 30	Arg	Pro
Thr	Ala	Ser 35	Ala	Leu	Cys	Ser	Arg 40	Trp	Leu	Gln	Arg	Cys 45	Arg	Asp	Val
Gly	Arg 50	Cys	Leu	Leu	Gln	Val 55	Gly	Gln	Gly	Ala	Leu 60	Arg	Asp	Val	Gly
Gly 65	Leu	Phe	Val	Leu	His 70	Val	Asp	Val	Leu	Gln 75	His	Leu	Leu	Pro	Met 80
Pro	Gln	Leu	Cys	Gln 85	Val	Leu	Leu	Asp							
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, Ser	Asp	Leu	Ala 20	Phe	Phe	Arg	Phe	Pro 25	Arg	Asp	Pro	Ala	Arg 30	Cys	Gln
Lys	Trp	Val 35	Glu	Asn	Cys	Arg	Arg 40	Ala	Asp	Leu	Glu	Asp 45	Lys	Thr	Pro
Asp	Gln 50	Leu	Asn	Lys	His	Tyr 55	Arg	Leu	Cys	Ala	Lys 60	His	Phe	Glu	Thr
Ser 65	Met	Ile	Cys	Arg	Thr 70	Ser	Pro	Tyr	Arg	Thr 75	Val	Leu	Arg	Asp	Asn 80
Ala	Ile	Pro	Thr	Ile 85	Phe	Asp	Leu	Thr	Ser 90	His	Leu	Asn	Asn	Pro 95	His
Ser	Arg	His	Arg 100	Lys	Arg	Ile	Lys	Glu 105	Leu	Ser	Glu	Asp	Glu 110	Ile	Arg
Thr	Leu	Lys 115	Gln	Lys	Lys	Ile	Asp 120	Glu	Thr	Ser	Glu	Gln 125	Glu	Gln	Lys
His	Lys 130	Glu	Thr	Asn	Asn	Ser 135	Asn	Ala	Gln	Asn	Pro 140	Ser	Glu	Glu	Glu
Gly 145	Glu	Gly	Gln	Asp	Glu 150	Asp	Ile	Leu	Pro	Leu 155	Thr	Leu	Glu	Glu	Lys 160

Tyr Leu Lys Ser Leu Phe Glu Ile Leu Ile Leu Met Glu Asn Lys Glu 170 175 165 Gln Asn Ile Pro Leu Asp Gly His Glu Ala Asp Glu Ile Pro Gly Lys 180 185 190 Gln Ala Thr Asn Phe Leu Leu Glu Cys Arg Gly Leu Phe Pro Asp Glu 195 200 Glu Glu Val Phe Glu Thr Thr Ile Asn Ser Gly Leu Arg Lys Arg 215 220 210 Val Phe Cys Ser Lys Thr Gln Gln Arg Gln Met Leu Glu Thr Leu 240 225 230 235 Glu Thr Glu Val Asp Glu Leu Arg Arg Cys Ile Arg Ile Cys Glu Ser 250 255 245 Val Val Ile Ala Gly Phe Phe Ile Ile Thr Asp Asp Asp His Ser Ser 265 270 260 Glu Glu Glu His Leu Pro Val Leu Val Arg Phe Val Asp Ser His Asn 280 285 275 Gly Phe Pro Tyr Glu Ala Asp Ala Glu Leu Arg Glu Glu Phe Ile Leu 300 290 295 Met Thr Glu Trp Gly Leu Phe His Thr Ile Lys Ile Leu Val Lys Ala 310 315 320 305 Gly Phe Gly Gln Ala Tyr Ile Val Ser Ser Asn Met Glu Tyr Cys Arg 335 325 330 Ser Lys Met Lys Val Val Ala Ser Arg Leu Leu Glu Lys Tyr Pro Ser 350 340 Gln Ala Ile Tyr Thr Leu Cys Ser Ser Cys Ala Leu Asn Met Trp Leu 355 360 365 Gly Val Ser Ala Leu Gly Thr Ala Lys Ser Val Pro Val Met Val Ile 380 375 370 Glu Glu Val Cys Thr Thr Phe Phe His Xxx Ile Thr Ala Phe Arg Ser 395 400 385 390 Thr <210> 279 <211> 106 <212> PRT <213> Homo sapiens <400> 279 Met Leu Ile Ser Gly Thr Leu Ser His Gly Thr Thr Gln Ile Gln Tyr 10 15 1 Met Leu Pro Glu His His Ala Asp Tyr Arg Ser Asp Xxx Xxx Glu 20 Ile Thr Ser Ala Glu Leu His Cys Trp Arg Lys Trp Lys Pro Asp Leu 45 35 40

His Arg Gly Lys Asp Ile Glu Leu Pro Ser Thr Ile Tyr Glu Ala Leu 50 55 His Leu Pro Asp Ile Lys Phe Phe Pro Asn Val Tyr Ala Leu Leu Lys 70 65 75 80 Val Cys Ile Leu Pro Leu Val Met Lys Val Glu Asn Glu Arg Tyr Glu 85 90 Gly Thr Asn Lys Ala Ser Leu Lys His Ile 100 105 <210> 280 <211> 398 <212> PRT <213> Homo sapiens <400> 280 Lys Phe Trp Asp Asn Ala Gln Thr Ser Gly Lys Cys Asn Ile Glu Glu Pro Ser Glu Thr Gly Ser Lys Met Gln Lys Ser Lys Phe Lys 20 25 30 Tyr Lys Leu Val Pro Glu Glu Glu Thr Thr Ala Glu Ser Thr Asn Glu 40 45 Thr Ile Ser Glu Arg Gln Lys Glu Gly Ile Lys Leu Thr Ile Arg Ile 50 60 Ser Ser Arg Lys Lys Lys Pro Asp Ser Pro Pro Lys Val Leu Glu Pro 65 75 80 Glu Gln Glu Asn Lys Lys Thr Glu Lys Glu Glu Glu Lys Thr Val 90 95 Gly Arg Thr Leu Ser Arg Arg Pro Arg Ile Ser Arg Pro Thr Ala Lys 100 110 Val Ala Glu Ile Gln Lys Gly Arg Asp Ala Asp Lys Lys Arg Gly Glu 115 120 125 Glu Asp Glu Val Glu Glu Glu Ser Thr Ala Gln Leu Lys Thr Asp Lys 130 135 140 Lys Glu Ile Leu Lys Lys Ser Glu Asn Lys Asp Thr Ser Lys Val Ser 145 150 155 160 Val Lys Lys Pro Lys Gly Lys Val Arg Trp Thr Gly Ser Arg Arg Thr 165 170 Gly Arg Trp Lys Tyr Glu Ser Ser Asn Asp Ser Glu Gly Ser Gly 180 185 Glu Lys Ser Ser Ala Ala Ser Glu Glu Glu Glu Glu Lys Glu Ser Glu 195 200 205 Glu Ala Ile Asp Leu Ala Asp Asp Glu Pro Cys Lys Lys Cys Gly Leu 210 215 220

Pro Asn His Pro Glu Leu Ile Leu Leu Cys Asp Ser Cys Asp Ser Gly

225 230 235 240 Cys Leu Arg Pro Pro Leu Ile Ile Pro Tyr His Thr Ala Met Gly Asp 245 250 255 Phe Cys Pro Pro Cys Gln His Lys Leu Leu Glu Cys Lys Leu 260 265 Gln Leu Gln Asp Leu Asp Val Ala Leu Lys Lys Lys 280 275 285 Glu Arg Gly Glu Leu Val Tyr Val Ile Ser Ile Glu Ala Arg Arg Lys 290 295 300 Ile Ile Pro Gln Glu Phe Ser Glu Gln Glu Glu Pro Pro Asp Asp Asn 305 310 315 320 Ser Ser Ala Glu Lys Lys Lys Asp Lys Lys Lys Asn Leu Leu Arg Arg 325 330 335 Ser Thr Arg Thr Arg Lys Cys Ile Ser Tyr Arg Phe Asp Glu Phe Asp 340 345 350 Glu Ile Glu Ala Ile Ile Glu Ala Gly Glu Ala Asp Asp Asp Lys Asp 355 360 365 Ile Thr Gly Gly Val Gly Arg Gly Lys Asp Ile Ser Thr Gly His Arg 380 370 375 Gly Lys Asp Ile Ser Thr Ile Leu Asp Glu Lys Ile Ile 385 390 <210> 281 <211> 198 <212> PRT <213> Homo sapiens <400> 281 Ser Glu Lys Ser Gly Ser Cys Gly Gly Met Met Ser Phe Ser Ile Leu 1 10 Ile Phe Leu Phe Pro Thr Tyr Thr Lys Arg Ser Arg Ser Ala Arg Ser 20 25 30 Phe Phe Lys Ala Thr Ser Lys Ser Cys Asn Cys Ser Ser Asn Phe Ser 35 40 45 Ser Ser Gln Gly Gly Gln Asn His Pro Ser Gly Gln Cys Trp Ser Leu 50 55 60 Trp Gly Gly Gln Ala Val Pro Met Ile Ile Arg Arg Tyr Ser Arg Leu 70 75 65 80 Trp Glu Ser His Arg Arg Ile Ser Ser Gly Phe Gly Arg Pro His 90 Leu His Gly Ser Ser Ser Ser Ala Arg Met Ala Ser Ser Leu 100 105 110 Ser Ser Ser Glu Ala Ala Asp Asp Phe Ser Phe Ser Pro Leu Asp 120 125 115

Pro	Ser 130	Leu	Ser	Ser	Leu	Leu 135	Glu	Tyr	Phe	His	Leu 140	Pro	Arg	Val	Arg
Glu 145	Pro	Val	His	Arg	Thr 150	Leu	Pro	Leu	Gly	Phe 155	Thr	Leu	Leu	Thr	Leu
Glu	Phe	Val	Ser	Phe	Ser	Asp	Phe	Phe	Lys	Ile	Ser	Phe	Leu	Ser	160 Val
Phe	Cys	Lys	Ala	165 Val	Asp	Ser	Ser	Ser	170 Thr	Ser	Ser	Ser	Pro	175 Ser	Dro
1110	Cys	270	180	vui	пор	001	JCI	185	1111	Jei	361	261	190	ser	Pro
Leu	Phe	Leu 195	Ser	Ala	Phe	-									
<210><211><212><213>	202 PRT	sapie	ens												
<400>	282														
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Gly	Asp	Gly	Val 20	Ala	Ser	Leu	Pro	Leu 25	Lys	Leu	Gly	Arg	Leu 30	Phe	Gly
Gly	Val	Thr 35	Arg	Gly	Phe	Asn	Met 40	Arg	Ile	Glu	Lys	Cys 45	Tyr	Phe	Cys
Ser	Gly 50	Pro	Ile	Tyr	Pro	Gly 55	His	Gly	Met	Met	Phe 60	Val	Arg	Asn	Asp
Суs 65	Lys	Val	Phe	Arg	Phe 70	Cys	Lys	Ser	Lys	Cys 75	His	Lys	Asn	Phe	Lys 80
Lys	Lys	Arg	Asn	Pro 85	Arg	Lys	Val	Arg	Trp 90	Thr	Lys	Ala	Phe	Arg 95	Lys
Ala	Ala	Gly	Lys 100	Glu	Leu	Thr	Val	Asp 105	Asn	Ser	Phe	Glu	Phe 110	Glu	Lys
Arg	Arg	Asn 115	Glu	Pro	Ile	Lys	Tyr 120	Gln	Arg	Glu	Leu	Trp 125	Asn	Lys	Thr
Ile	Asp 130	Ala	Met	Lys	Arg	Val 135	Glu	Glu	Ile	Lys	Gln 140	Lys	Arg	Gln	Ala
Lys 145	Phe	Ile	Met	Asn	Arg 150	Leu	Lys	Lys	Asn	Lys 155	Glu	Leu	Gln	Lys	Val 160
Gln	Asp	Ile	Lys	Glu 165	Val	Lys	Gln	Asn	Ile 170	His	Leu	Ile	Arg	Ala 175	Pro
Leu	Ala	Gly	Lys 180	Gly	Lys	Gln	Leu	Glu 185	Glu	Lys	Met	Val	Gln 190	Gln	Leu
Gln	Glu	Asp 195	Val	Asp	Met	Glu	Asp 200	Ala	Pro						

<210> 283 <211> 84

<212> PRT <213> Homo sapiens

<400> 283

Phe Pro Glu Cys Lys Cys Phe Gly Ile Ile His Cys Leu Phe Thr Ser 10 Ile Ala Leu Leu Phe Val Phe Met Thr Phe Ala Arg Lys Pro Pro Asn 2.0 Phe Arq Phe Ala Lys Ser Glu His Leu Ala Ile Val Ala Asp Glu His Gly Pro Arg Thr Glu Ile Thr Leu Phe Ala Val Ser Arg Ile Asp 60 50 55 Gln Thr Thr Val Glu Pro Ala Cys Asn Pro Thr Lys Pro Lys His Asp 70 75 80 65

Leu Glu Arg Lys

<210> 284

<211> 206

<212> PRT

<213> Homo sapiens

<400> 284

Glu Pro Arg Ser Val Thr Arg Ser Arg Arg Ala Val Ser Arg Arg Leu 15 5 10 Phe Pro Gly Lys Val Ser Ala Val Met Ala Leu Ala Ala Arg 25 30 20 Tyr Gln Gln Tyr Pro Thr His Lys Val Leu Arg Leu Lys Ser Gly Leu 35 40 Leu Glu Gln Ala His Ser Trp Cys Val Arg Asp Lys Arg Arg 50 55 Met Phe Glu Glu Asn Phe Ala Cys Leu Arg Ala Arg His Lys Arg Tyr 80 65 70 Met Ala Lys Ala Thr Gln Leu Leu Lys Glu Ala Glu Glu Glu Asp Lys 90 95 Glu Trp Tyr Arg Gln His Pro Gln Pro Tyr Ile Phe Pro Asp Ser Phe 105 110 100 Val Pro Glu Gly Tyr Glu Asp Tyr Lys Gly Thr Arg Tyr Cys Pro Ser 125 120 115 Ala Met Tyr His Pro Ser Glu Lys Pro Asp Trp Cys Leu Asp Asp Trp 130 135 Phe Ala Lys Arg Glu Gln Trp Lys Lys Leu Arg Arg Gľu Ser Trp Tyr 160 155 145 150 Gln Leu Gln Glu Glu Thr Pro Pro Gly Gly Pro Glu Arg Glu Val Lys 175 170 165 Leu Thr Glu Ala Leu Pro Pro Ala Arg Lys Glu Gly Asp Leu Pro

			180					185					190		
Leu	Trp	Trp 195	Tyr	Ile	Val	Thr	Arg 200	Pro	Arg	Glu	Arg	Pro 205	Met		
<210><211><212><212><213>	139 PRT	sapie	ns												
<400>	285														
Pro 1	Leu	Val	Pro	Ser 5	Phe	Pro	Ser	Ala	Val 10	Ser	Ser	Thr	Val	Leu 15	Ser
Trp	Gln	Ser	Asn 20	Gln	Asp	Thr	Leu	Pro 25	Ser	Gln	Lys	Asp	Ala 30	Ser	His
Leu	Ser	Thr 35	Ile	Leu	Gly	Pro	Cys 40	Ser	Asn	Arg	Ile	Ser 45	His	Arg	Arg
Cys	Pro 50	Gln	Glu	Ser	Gln	Gly 55	Arg	Cys	Met	Ala	Val 60	Asp	Ala	Asp	Gly
Thr 65	Arg	Ile	Leu	Pro	Arg 70	Pro	Pro	Ser	Ala	Ala 75	Gly	Trp	Pro	Ser	Pro 80
Tyr	Pro	Phe	His	Ser 85	Tyr	Val	Leu	Gln	Thr 90	Gly	Leu	Ser	Ser	Asn 95	Lys
Gln	Ser	Ile	Gly 100	Ile	Cys	Leu	Ser	Gly 105	Arg	Thr	Thr	Thr	Arg 110	Gly	Gly
Val	Ala	Pro 115	Ala	Tyr	Lys	Ala	Ala 120	Thr	Pro	Phe	Ala	Asp 125	Gly	Ser	Gly
Arg	Val 130	Pro	Thr	Pro	Arg	Thr 135	Pro	Leu	Arg	Arg					
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Leu 1	Met	Met	Thr	Ile 5	Tyr	Ala	Leu	Ser	Asn 10	Glu	Phe	Ala	Phe	Lys 15	Ile
Asn	Glu	Glu	Gln 20	Leu	Ser	Phe	Phe	Pro 25	Leu	Leu	Ser	Val	Gln 30	Leu	Trp
His	Ala	Gln 35	Arg	Phe	Leu	Leu	Asp 40	Ser	Ser	Trp	Ser	Gly 45	Val	Ile	Pro
Phe	Phe 50	Phe	Ser	Cys	Ser	Cys 55	Leu	Pro	Phe	Leu	Tyr 60	Pro	Pro	Arg	Trp
Arg 65	Gln	Ile	His	Asp	Leu 70	Lys	Asp	Thr	Gln	Tyr 75	Leu	Leu	Asn	Ser	Ser 80
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<212> PRT <213> Homo sapiens

<400> 287

Leu 1	Met	Met	Thr	Ile 5	Tyr	Ala	Leu	Ser	Asn 10	Glu	Phe	Ala	Phe	Lys 15	Ile
Asn	Glu	Glu	Gln 20	Leu	Ser	Phe	Phe	Pro 25	Leu	Leu	Ser	Val	Gln 30	Leu	Trp
His	Ala	Gln 35	Arg	Phe	Leu	Leu	Asp 40	Ser	Ser	Trp	Ser	Gly 45	Val	Ile	Pro
Phe	Phe 50	Phe	Ser	Cys	Ser	Cys 55	Leu	Pro	Phe	Leu	Tyr 60	Pro	Pro	Lys	Trp
Arg 65	Gln	Ile	His	Asp	Leu 70	Lys	Asp	Thr	Gln	Tyr 75	Leu	Leu	Asn	Ser	Ser 80

<210> 288

<211> 206

<212> PRT

<213> Homo sapiens

180

<400> 288

Arg 1	Leu	Ser	Cys	Ala 5	Gly	Thr	Leu	Ser	Gly 10	Ser	Gly	Pro	His	Pro 15	Ser
Arg	Arg	Leu	Thr 20	Gln	Gly	Arg	Trp	Val 25	Arg	Lys	Ser	Arg	Val 30	Ala	Met
Glu	Lys	Ile 35	Pro	Val	Ser	Ala	Phe 40	Leu	Leu	Leu	Val	Ala 45	Leu	Ser	Tyr
Thr	Leu 50	Ala	Arg	Asp	Thr	Thr 55	Val	. ràs	Pro	Gly	Ala 60	Lys	Lys	Asp	Thr
Lys 65	Asp	Ser	Arg	Pro	Lys 70	Leu	Pro	Gln	Thr	Leu 75	Ser	Arg	Gly	Trp	Gly 80
Asp	Gln	Leu	Ile	Trp 85	Thr	Gln	Thr	Tyr	Glu 90	Glu	Ala	Leu	Tyr	Lys 95	Ser
Lys	Thr	Ser	Asn 100	Lys	Pro	Leu	Met	Ile 105	Ile	His	His	Leu	Asp 110	Glu	Cys
Pro	His	Ser 115	Gln	Ala	Leu	Lys	Lys 120	Val	Phe	Ala	Glu	Asn 125	Lys	Glu	Ile
Gln	Lys 130	Leu	Ala	Glu	Gln	Phe 135	Val	Leu	Leu	Asn	Leu 140	, Val	Tyr	Glu	Thr
Thr 145	Asp	Lys	His	Leu	Ser 150	Pro	Asp	Gly	Gln	Tyr 155	Val	Pro	Arg	Ile	Met 160
Phe	Val	Asp	Pro	Ser 165	Leu	Thr	Val	Arg	Ala 170	Asp	Ile	Thr	Gly	Arg 175	Tyr
Ser	Asn	Arg	Leu	Tyr	Ala	Tyr	Glu	Pro	Ala	Asp	Thr	Ala	Leu	Leu	Leu

185

190

Asp Asn Met Lys Lys Ala Leu Lys Leu Leu Lys Thr Glu Leu 195 200 <210> 289 <211> 77 <212> PRT <213> Homo sapiens <400> 289 Phe Gln Cys Gln His Gly Asn Pro Glu Leu Pro Trp Arg Lys Ser 10 15 Ser Leu Trp Pro Ser Pro Thr Trp Pro Glu Ile Pro Gln Leu Ser Asn 20 25 30 Pro Lys Arg Thr Gln Arg Thr Leu Asp Pro Asn Cys Pro Arg 45 Pro Ser Glu Gly Val Thr Pro Val Asn Ser Ser Gly Leu Arg His 50 60 Lys Lys Pro Leu Tyr Ile Asn Arg Gln Ala Thr Asn Pro 65 70 <210> 290 <211> 160 <212> PRT <213> Homo sapiens <400> 290 Xxx Gly Gln Leu Leu Xxx Pro Xxx Ala Xxx Gln Gly $\mathbf{X}\mathbf{x}\mathbf{x}$ Xxx10 15 Pro Ala Ala Ser Cys Xxx Xxx Gln Asp Val His Leu Xxx Arg Cys Xxx 20 25 30 Tyr Val Val Arg Trp Gln Arg Ile Thr Gly Met Pro $\mathbf{x}\mathbf{x}\mathbf{x}$ xxxAla 40 Gln Arg Thr Arg Asn Phe Ser Lys Phe xxXVal Met Asp Leu 50 55 60 Gly Phe Pro Glu Gly Lys xxxGln xxxGlu Xxx Gln Glu Xxx 65 Glu Gly Ser Ser Gly Trp Arg Ser Lys Cys Arg Ile Ser XxxSer xxx85 95 90 Leu Pro Xxx Ser Thr Ile Xxx Phe Xxx Leu Lys $\mathbf{X}\mathbf{x}\mathbf{x}$ Trp XxxXxx xxx100 105 110 Ile Arg xxxGln Ser Pro xxxThr Arg Thr Arg Trp Xxx Tyr Leu Leu 115 120 125 Gly Ser Ile Ser Glu Phe Ser Pro Gly Trp Ser Cys Leu Pro Asn Leu 130 135 140 Glu Gly Lys Pro Arg Met Thr xxxAla Lys Trp Pro Lys Phe Phe Leu 145 150 155 160

<210> 291

<211> 150

<212> PRT <213> Homo sapiens

<400> 291

Arg 1	His	Xxx	Pro	Leu 5	Xxx	Leu	Gly	Xxx	His 10	Gly	His	Arg	Ala	His 15	Ser
Cys	Leu	Gly	Trp 20	Ser	Gln	Xxx	Ala	Leu 25	Trp	Asp	Xxx	Ala	Trp 30	Gly	Leu
Xxx	Xxx	Xxx 35	Gly	Ser	Xxx	Gln	Xxx 40	Arg	Lys	Lys	Glu	Ala 45	Xxx	Trp	Cys
Val	Xxx 50	Val	Gly	Xxx	Val	Gly 55	Xxx	Cys	Xxx	Xxx	Pro 60	Xxx	Glu	Xxx	Met
Xxx 65	Xxx	Gly	Phe	Glu	Gln 70	Asn	Xxx	Xxx	Gly	Pro 75	Xxx	Asn	Xxx	Xxx	Val 80
Ser	Xxx	Leu	Gly	Xxx 85	Xxx	Xxx	Trp	Asn	Arg 90	Xxx	Ala	Glu	Lys	Asn 95	Met
Xxx	Gly	Cys	Cys 100	Ala	Lys	Xxx	Val	Asn 105	Xxx	Xxx	Met	Asp	His 110	Xxx	Xxx
Gly	Phe	Gln 115	Xxx	Arg	Gln	Ile	Arg 120	Gly	Leu	Cys	Ser	His 125	Ala	His	Thr
Gly	Xxx 130	Asn	Cys	His	Val	Ser 135	Xxx	Ser	Gly	Ser	Asp 140	Thr	Gln	Leu	Cys
Xxx 145	Gly	Leu	Ser	Phe	Met 150										

<210> 292

Arg 1	Ala	Ala	Lys	Ile 5	Leu	Lys	Gly	Gly	Leu 10	Gln	Glu	Val	Ala	Glu 15	Gln
Leu	Glu	Leu	Glu 20	Arg	Ile	Gly	Pro	Gln 25	His	Gln	Ala	Gly	Ser 30	Asp	Ser
Leu	Leu	Thr 35	Gly	Met	Ala	Phe	Phe 40	Lys	Met	Arg	Glu	Met 45	Phe	Phe	Glu
Asp	His 50	Ile	Asp	Asp	Ala	Lys 55	Tyr	Cys	Gly	His	Leu 60	Tyr	Gly	Leu	Gly
Ser 65	Gly	Ser	Ser	Tyr	Val 70	Gln	Asn	Gly	Thr	Gly 75	Asn	Ala	Tyr	Glu	Glu 80
Glu	Ala	Asn	Lys	Gln 85	Ser										

<210> 293

<211> 86

<212> PRT

<213> Homo sapiens

<211> 64

<212> PRT <213> Homo sapiens <400> 293 Ile Lys Ala Lys Phe Asn Leu Asn Ala Phe Phe Phe Phe Phe Leu Leu 15 Arg Ser Glu Ile Gly Thr Val Ile Leu Ser Thr Glu Arg Gln Thr Ile 20 25 30 Trp Ala Lys Met Lys Gly Gly Gly Lys Val Leu Ser Ile Val Arg Gly 35 40 45 Pro Glu Ile Lys Gln Pro Ile Tyr Lys His Val Cys Ser Lys Ser 55 60 <210> 294 <211> 226 <212> PRT <213> Homo sapiens <400> 294 Ala Ser Thr Ile Met Asp Leu Leu Phe Gly Arg Arg Lys Thr Pro Glu 1 10 15 Glu Gln Leu Leu Arg Asn Gln Arg Ala Leu Asn Arg Ala Arg Met Glu 20 25 30 Asp Leu Arg Glu Gln Lys Arg Leu Glu Thr Gln Glu Lys Lys Ile Ile 40 Asp Ile Ala Lys Lys Met Lys Gln Gly Gln Met Asp Ala Val 50 55 60 Ile Met Ala Lys Asp Leu Val Arg Thr Arg Arg Tyr Val Arg Lys Phe 65 80 Val Leu Ala Met Arq Asn Ile Gln Ala Val Ser Leu Lys Ile Gln Thr 85 90 Leu Lys Ser Asn Asn Ser Met Ala Gln Ala Met Lys Gly Val Thr 100 105 110 Ala Met Gly Thr Met Asn Arg Gln Leu Gln Lys Leu Pro Ile Gln Lys 115 120 125 Ile Met Met Glu Glu Arg Phe Gln Ala Glu Ile Met Asp Met Lys 130 135 140 Glu Met Asn Asp Ala Ile Asp · Asp Pro Met Gly Glu Glu

Glu Asp Asp 145 150 155 160 Glu Glu Glu Asp Ser Asp Ala Val Val Ser Gln Val Leu Glu Gly Leu 165 170 175 Leu Thr Ser Leu Asp Glu Leu Gly Ser Asn Leu Pro Ser Thr Gly Ser 180 185 190 Leu Ser Val Ala Ala Gly Gly Lys Lys Ala Glu Ala Ala Ala Ser Ala 195 200 205

Leu Ala Asp Ala Asp Leu Glu Glu Arg Leu Lys Asn Leu Arg 210 215 220 Arq Asp 225 <210> 295 <211> 166 <212> PRT <213> Homo sapiens <400> 295 Lys Ile Leu Gly Ile His Trp Leu Ser Arg Ser Gly Arg Gly Thr 10 15 Arg Arg Arg Phe Leu Ser Arg Ser Ser Ser Ala Ser Ala Ser 30 Arg Ala Glu Ala Ala Ala Ala Ser Ala Phe Phe Pro Pro Ala Ala 40 Leu Ser Glu Pro Pro Val Glu Gly Arg Phe Ser Asp Ser Ser Val Arg 50 Leu Ser Pro Ser Ser Ser Arg Thr Trp Asp Thr Thr Ala Ser Leu Ser 65 70 75 Ser Ser Ser Ser Ser Ser Pro Met Gly Ser Ser Met Ala Ser Phe 85 90 95 Phe Ser Ser Ile Ser Met Ile Ser Ala Cys Arg Ser Asn Ser Ile 100 105 110 Ile Met Phe Trp Ile Trp Gly Asn Phe Ser Cys Leu Phe Val Met Pro 115 120 125 Met Ala Val Phe Leu Thr Pro Met Ala Cys Ala Ile Glu Leu Leu Asp 130 135 140 Leu Trp Ser Val Trp Ile Leu- Arg Asp Thr Ala Met Leu Ala Arg Ile 145 155 160 Asn Thr Asn Leu Arg Thr 165 <210> 296 <211> 233 <212> PRT <213> Homo sapiens <400> 296 Pro Glu Gly Ala Arg Arg Val Gln Phe Val Met Gly Leu Lys Phe Gly Lys Thr Gln Glu Lys Pro Pro Lys Glu Leu Val Asn Glu Trp Ser 25 30 Lys Ile Arg Lys Glu Met Val Val Arg Asp Arg Gln Ile Arg Asp Ile 35 40 Gln Arg Glu Glu Lys Val Lys Arg Ser Val Lys Asp Ala Ala Lys

50 55 60 Gly Gln Lys Asp Val Cys Ile Val Leu Ala Lys Glu Met Ile Arg 65 70 75 80 Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser Lys Ala His Asn 90 Ser Val Leu Met Gly Met Gln Lys Asn Leu Ala Val Val Leu Arg Ala 100 105 110 Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys Ala Met Gln Ser Leu 115 120 125 Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg Glu Leu Ser Lys Glu 130 135 140 Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu Glu Asp Thr Phe Glu 145 150 155 160 Ser Met Gln Glu Glu Asp Asp Met Glu Glu Glu Ala Glu Met Glu Ile 165 170 Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala Leu Gly Lys Ala Pro 180 185 190 Val Ser Lys Thr Asp Ala Pro Leu Pro Glu Pro Glu Pro Gly Ala Met 195 200 205 Ala Ala Ser Glu Asp Glu Gly Glu Glu Glu Ala Leu Glu Ala Met 210 215 220 Gln Ser Arg Leu Ala Thr Leu Arg Ser 225 230

<210> 297

<211> 129

<212> PRT

<213> Homo sapiens

Leu 1	Met	Pro	Phe	Gln 5	Ser	Gln	Asn	Leu	Gln 10	Glu	Arg	Trp	Leu	Pro 15	Gln
Arg	Met	Arg	Gly 20	Arg	Arg	Lys	Arg	Leu 25	Trp	Arg	Pro	Cys	Ser 30	Pro	Gly
Trp	Pro	His 35	Ser	Ala	Ala	Arg	Gly 40	Cys	Leu	Pro	Arg	Trp 45	Val	Cys	Thr
His	Ser 50	Ser	Gln	Glu	Leu	Pro 55	Phe	Tyr	Val	Ser	Leu 60	Ala	Leu	His	Leu
Cys 65	Cys	Glu	Asp	Tyr	His 70	Phe	Gly	Glu	Gly	Ser 75	Val	Cys	Leu	Phe	Ser 80
Phe	Ser	Ala	Gln	Val 85	Leu	Gly	Ser	Gln	Arg 90	Asp	Cys	Ser	Tyr	Lys 95	Ser
Gly	Ile	Asn	Lys 100	Cys	Ile	Ile	Phe	Arg 105	Ser	Ile	Asp	Arg	Tyr 110	Ile	Leu

Leu Trp Gly Gly Glu Arg Asn Pro Ser Ala His Glu Ala Leu Leu Lys 115 120 125

Ile

<210> 298

<2:11> 351

<212> PRT

<213> Homo sapiens

Thr 1	Trp	Cys	Thr	Thr 5	Thr	Met	Leu	Ala	Ala 10	Arg	Leu	Val	Суѕ	Leu 15	Arg
Thr	Leu	Pro	Ser 20	Arg	Val	Phe	His	Pro 25	Ala	Phe	Thr	Lys	Ala .30	Ser	Pro
Val	Val	Lys 35	Asn	Ser	Ile	Thr	Lys 40	Asn	Gln	Trp	Leu	Leu 45	Thr	Pro	Ser
Arg	Glu 50	Tyr	Ala	Thr	Lys	Thr 55	Arg	Ile	Gly	Ile	Arg 60	Arg	Gly	Arg	Thr
Gly 65	Gln	Glu	Leu	Lys	Glu 70	Ala	Ala	Leu	Glu	Pro 75	Ser	Met	Glu	Lys	Ile 80
Phe	Lys	Ile	Asp	Gln 85	Met	Gly	Arg	Trp	Phe 90	Val	Ala	Gly	Gly	Ala 95	Ala
Val	Gly	Leu	Gly 100	Ala	Leu	Cys	Tyr	Tyr 105	Gly	Leu	Gly	Leu	Ser 110	Asn	Glu
Ile	Gly	Ala 115	Ile	Glu	Lys	Ala	Val 120	Ile	Trp	Pro	Gln	Tyr 125	Val	Lys	Asp
Arg	Ile 130	His	Ser	Thr	Tyr	Met 135	Tyr	Leu	Ala	Gly	Ser 140	Ile	Gly	Leu	Thr
Ala 145	Leu	Ser	Ala	Ile	Ala 150	Ile	Ser	Arg	Thr	Pro 155	Val	Leu	Met	Asn	Phe 160
Met	Met	Arg	Gly	Ser 165	Trp	Val	Thr	Ile	Gly 170	Val	Thr	Phe	Ala	Ala 175	Met
Val	Gly	Ala	Gly 180	Met	Leu	Val	Arg	Ser 185	Ile	Pro	Tyr	Asp	Gln 190	Ser	Pro
Gly	Pro	Lys 195	His	Leu	Ala	Trp	Leu 200	Leu	His	Ser	Gly	Val 205	Met	Gly	Ala
Val	Val 210	Ala	Pro	Leu	Thr	Ile 215	Leu	Gly	Gly	Pro	Leu 220	Leu	Ile	Arg	Ala
Ala 225	Trp	Tyr	Thr	Ala	Gly 230	Ile	Val	Gly	Gly	Leu 235	Ser	Thr	Val	Ala	Met 240
Cys	Ala	Pro	Ser	Glu 245	Lys	Phe	Leu	Asn	Met 250	Gly	Ala	Pro	Leu	Gly 255	Val
Gly	Leu	Gly	Leu 260	Val	Phe	Val	Ser	Ser 265	Leu	Gly	Ser	Met	Phe 270	Leu	Pro

Pro	o Thr		Val	Ala	Gly	Ala	Thr	Leu	Tyr	Ser	Val	Ala	Met	Tyr	Gly
		275					280					285		•	2
Gly	/ Leu 290	Val	Leu	Phe	Ser	Met 295	Phe	Leu	Leu	Tyr	300	Thr	Gln	Lys	Val
]]e	-	Arg	Ala	Glu	Val 310	Ser	Pro	Met	Tyr	Gly 315	Val	Gln	Lys	Tyr	Asp 320
Pro	Ile	Asn	Ser	Met 325	Leu	Ser	Ile	Tyr	Met 330	Asp	Thr	Leu	Asn	Ile 335	Phe
Met	: Arg	Val	Ala 340	Thr	Met	Leu	Ala	Thr 345	Gly	Gly	Asn	Arg	Lys 350	Lys	
<210><211><212><213>	147	sapie	ens									·			
<400>	299														
Arg 1		Ala	Pro	Ala 5	Thr	Val	Val	Gly	Gly 10	Arg	Asn	Ile	Asp	Pro 15	Asn
Glu	Asp	Thr	Lys 20	Thr	Arg	Pro	Arg	Pro 25	Thr	Pro	Arg	Gly	Ala 30	Pro	Met
Phe	Arg	Asn 35	Phe	Ser	Leu	Gly	Ala 40	His	Met	Ala	Thr	Val 45	Glu	Arg	Pro
Pro	Thr 50	Met	Pro	Ala	Val	Tyr 55	His	Ala	Ala	Leu	Met 60	Arg	Arg	Gly	Pro
Pro 65	Asn	Ile	Val	Arg	Gly 70	Ala	Thr	Thr	Ala	Pro 75	Ile	Thr	Pro	Glu	Суs 80
Ser	Asn	Gln	Ala	Arg 85	Cys	Phe	Gly	Pro	Gly 90	Leu	Trp	Ser	Tyr	Gly 95	Ile
Asp	Arg	Thr	Ser 100	Ile	Pro	Ala	Pro	Thr 105	Met	Ala	Ala	Lys	Val 110	Thr	Pro
Ile	Val	Thr 115	Gln	Glu	Pro	Leu	Ile 120	Met	Lys	Phe	Met	Arg 125	Thr	Gly	Val
Leu	Leu 130	Ile	Ala	Met	Ala	Asp 135	Lys	Ala	Val	Lys	Pro 140	Ile	Leu	Pro	Ala
Lys 145	Tyr	Ile													
<210><211><212><213>	188 PRT	sapie	ns												
<400>	300														
Arg 1	Arg	Leu	Glu	Val 5	Ser	Tyr	Arg	Gln	His 10	His	Phe	Arg	Val	Ser 15	Leu
Ala	Pro	Trp	Ser	Lys	Met	Ala	Asp	Glu	Ala	Thr	Arg	Arg	Val	Val	Ser

Glu	Ile	Pro 35	Val	Leu	Lys	Thr	Asn 40	Ala	Gly	Pro	Arg	Asp 45	Arg	Glu	Leu
Trp	Val 50	Gln	Arg	Leu	Lys	Glu 55	Glu	Tyr	Gln	Ser	Leu 60	Ile	Arg	Tyr	Val
Glu 65	Asn	Asn	Lys	Asn	Ala 70	Asp	Asn	Asp	Trp	Phe 75	Arg	Leu	Glu	Ser	Asn 80
Lys	Glu	Gly	Thr	Arg 85	Trp	Phe	Gly	Lys	Суs 90	Trp	Tyr	Ile	His	Asp 95	Leu
Leu	Lys	Tyr	Glu 100	Phe	Asp	Ile	Glu	Phe 105	Asp	Ile	Pro	Ile	Thr 110	Tyr	Pro
Thr	Thr	Ala 115	Pro	Glu	Ile	Ala	Val 120	Pro	Glu	Leu	Asp	Gly 125	Lys	Thr	Ala
Lys	Met 130	Tyr	Arg	Gly	Gly	Lys 135	Ile	Cys	Leu	Thr	Asp 140	His	Phe	Lys	Pro
Leu 145	Trp	Ala	Arg	Asn	Val 150	Pro	Lys	Phe	Gly	Leu 155	Ala	His	Leu	Met	Ala 160
Leu	Gly	Leu	Gly	Pro 165	Trp	Leu	Ala	Val	Glu 170	Ile	Pro	Asp	Leu	Ile 175	Gln
Lys	Gly	Val	Ile 180	Gln	His	Lys	Glu	Lys 185	Cys	Asn	Gln				

<210> 301 <211> 172 <212> PRT <213> Homo sapiens

Ser 1	Lys	Phe	Gly	His 5	Ile	Pro	Gly	Pro	Gln 10	Arg	Phe	Glu	Met	Ile 15	Arg
Gln	Ala	Tyr	Phe 20	Ala	Thr	Pro	Val	His 25	Leu	Cys	Cys	Leu	Ser 30	Ile	Gln
Leu	Arg	Asn 35	Cys	Asn	Phe	Trp	Gly 40	Ser	Ser	Arg	Ile	Cys 45	Asp	Arg	Asn
Val	Lys 50	Leu	Asp	Val	Lys	Leu 55	Ile	Phe	Gln	Glu	Val 60	Met	Asp	Ile	Pro
Ala 65	Phe	Ser	Lys	Pro	-Pro 70	Ser	Ser	Phe	Leu	Val 75	Gly	Leu	Gln	Ser	Glu 80
Pro	Ile	Val	Val	Ser 85	Ile	Leu	Val	Val	Leu 90	His	Ile	Pro	Asp	Lys 95	Gly
Leu	Ile	Phe	Leu 100	Leu	Gln	Ser	Leu	His 105	Pro	Gln	Leu	Thr	Ile 110	Ser	Gly
Ser	Gly	Val 115	Ser	Leu	Gln	His	Arg 120	Asp	Leu	Arg	His	Asn 125	Thr	Ser	Arg

Ile Arg His Gly Gly Phe Leu Pro Gly Arg Lys Arg Asn Ala Glu Val 130 135 140 Val Leu Pro Val Ala Tyr Leu Lys Ala Pro Ser Ser Leu Trp Leu Glu 145 150 155 160 Asp Glu Thr Leu Gly Cys Cys Lys Thr Ser Phe Glu 165 170 <210> 302 <211> 320 <212> PRT <213> Homo sapiens <400> 302 Ala Val Arg Arg Arg Gly Ala Leu Ser Leu Ser Val Gly Ala Cys 10 Gly Leu Val Ala Leu Trp Gln Arg Arg Arg Gln Asp Ser Gly Thr Met 20 Gly Phe Thr Glu Arg Ser Ser Glu Ala Ala Pro Phe Ser Leu Glu Tyr 35 40 45 Val Phe Leu Lys Asn Glu Tyr Lys Gly Gln Ile Ser Pro Phe 50 55 60 Asp Ile Pro Ile Tyr Ala Asp Phe Lys Asp Val His Met Val Val Glu 65 75 80 Val Arg Trp Pro Ser Asn Ala Lys Met Glu Ile Ala Lys Thr Asp Pro 90 95 Ile Leu Asn Pro Lys Gln Asp Val Lys Lys Gly Lys Leu Arg Tyr Val 105 110 Ala Asn Leu Phe Pro Gly Ile Tyr Lys Tyr Trp Asn Tyr Gly Ala Ile 115 120 125 Pro Gln Thr Trp Glu Pro Gly Asp His Asn Asp Lys His Thr Gly Cys 130 135 140 Cys Gly Asp Asn Asp Pro Ile Asp Val Glu Gly Cys Ile Ser Lys Val 145 150 155 160 Gly Cys Ala Arg Glu Ile Ile Gly Val Lys Val Leu Gly Ile Leu Ala 165 170 175 Met Ile Asp Glu Gly Glu Thr Asp Trp Lys Val Ile Ala Ile Asn Val 180 185 190 Asp Asp Pro Asp Ala Ala Asn Tyr Asn Ile Asp Asn Asp Val Lys Arg 195 200 205 Leu Lys Pro Gly Tyr Glu Trp Leu Ala Thr Val Asp Phe Arg Arg Tyr 210 215 Lys Val Gly Pro Asp Lys Pro Glu Asn Glu Phe Ala Phe Asn Ala Glu 225 230 235 240 Ile Asp Lys Asp Phe Ala Ile Asp Ile Lys Thr Ser His Asp

250

255

245

Thr

65

Val

Lys

Ile Ser Tyr Asn

Asp

Glu

Tyr

85

Leu

70

Thr

Ser Asp Leu Asp

Glu

Ser

Pro

90

Lys

75

Tyr

Gln Ser Asn Val Thr

Ile

Gln

Lys

Glu

95

Gln

80

Trp Lys Ala Leu Val Thr Lys Lys Thr Asn Gly Lys Gly Ile Ser 260 265 Cys Met Asn Thr Thr Leu Ser Glu Ser Pro Phe Lys Cys Asp Pro Asp 275 280 285 Ala Ala Arg Ala Ile Val Asp Ala Leu Pro Pro Pro Cys Glu Ser Ala 290 295 300 Cys Thr Val Pro Thr Asp Val Asp Lys Trp Phe His His Gln Lys Asn 305 310 315 320 <210> 303 <211> 85 <212> PRT <213> Homo sapiens <400> 303 Ser Asn Leu His Phe Val Leu Cys Cys Ile Arg Pro Ala Trp Tyr 10 Phe His Val Asn Tyr Lys His Ile Leu Ile Cys Ile Asn Trp Asn 20 25 30 Lys Trp Arg Tyr Ile Leu Ser Phe Leu Ile Phe Glu Glu Asp Ser 40 45 Val Leu Gln Gly Glu Gly Arg Gly Ala Gly Leu Leu Ala Glu Ala Ala 50 55 60 Ser Ala Gly Val His Leu Pro Pro Pro Leu Pro Gln Ser His Pro 65 70 80 Ala Arg Gly Ala Asp 85 <210> 304 <211> 247 <212> PRT <213> Homo sapiens <400> 304 Gly Ser Ser Gly Ser Arg Phe Glu Val Val Val Leu Glu Glu Arg 15 . 10 Arg Gly Gly Gly Arg Arg Gly Met Gly Arg Gly Asp Gly Phe Arg Gly Lys Arq Glu Phe Asp Arg His Ser Gly Ser Asp Arg Ser Gly 35 40 Lys Asp Leu His Glu Arq Gly Gly Ser Gly Ser Lys His Asn Trp

Thr	Pro	Glu	Gly 100	Glu	Glu	His	His	Pro 105	Val	Ala	Asp	Thr	Glu 110	Asn	Lys
Glu	Asn	Glu 115	Val	Glu	Glu	Val	Lys 120	Glu	Glu	Gly	Pro	Lys 125	Glu	Met	Thr
Leu	Asp 130	Glu	Trp	Lys	Ala	Ile 135	Gln	Asn	Lys	Asp	Arg 140	Ala	Lys	Val	Glu
Phe 145	Asn	Ile	Arg	Lys	Pro 150	Asn	Glu	Gly	Ala	Asp 155	Gly	Gln	Trp	Lys	Lys 160
Gly	Phe	Val	Leu	His 165	Lys	Ser	Lys	Ser	Glu 170	Glu	Ala	His	Ala	Glu 175	Asp
Ser	Val	Met	Asp 180	His	His	Phe	Arg	Lys 185	Pro	Ala	Asn	Asp	Ile 190	Thr	Ser
Gln	Leu	Glu 195	Ile	Asn	Phe	Gly	Asp 200	Leu	Gly	Arg	Pro	Gly 205	Arg	Gly	Gly
Arg	Gly 210	Gly	Arg	Gly	Gly	Arg 215	Gly	Arg	Gly	Gly	Arg 220	Pro	Asn	Arg	Gly
Ser 225	Arg	Thr	Asp	Lys	Ser 230	Ser	Ala	Ser	Ala	Pro 235	Asp	Val	Asp	Asp	Pro 240
Glu	Ala	Phe	Pro	Ala	Leu	Ala									

<210> 305

<211> 78

<212> PRT

<213> Homo sapiens

245

<400> 305

Ser 1	Phe	Gly	Ile	Leu 5	Lys	His	Ala	Lys	Ala 10	Leu	Asn	Arg	Arg	Val 15	His
Lys	Gly	Thr	Arg 20	Val	Val	Leu	Trp	His 25	Pro	Val	Lys	Pro	Glu 30	Leu	Gly
Met	Pro	Leu 35	Gly	His	Pro	His	Gln 40	Glu	Gln	Lys	His	Leu 45	Thr	Cys	Arg
Ser	Cys 50	Cys	His	Gly	Leu	Gly 55	Ala	His	His	Ala	His 60	Val	His	Leu	Val
Leu 65	Pro	Cys	Arg	His	Val 70	Leu	Gly	Gly	Gln	Gly 75	Leu	Gln	Asn		

<210> 306

<211> 293

<212> PRT

<213> Homo sapiens

<400> 306

Ala Thr Arg Gly Ala Glu Gln Asp Gly Gly Ala Ser Ala Ala Arg Pro 1 5 10 15

Arg Arg Arg Trp Ala Gly Gly Leu Leu Gln Arg Ala Ala Pro Cys Ser 20 25 30

			20					25					30		
Leu	Leu	Pro 35	Arg	Leu	Arg	Thr	Trp 40	Thr	Ser	Ser	Ser	Asn 45	Arg	Ser	Arg
Glu	Asp 50	Ser	Trp	Leu	Lys	Ser 55	Leu	Phe	Val	Arg	Lys 60	Val	Asp	Pro	Arg
Lys 65	Asp	Ala	His	Ser	Asn 70	Leu	Leu	Ala	Lys	Lys 75	Glu	Thr	Ser	Asn	Leu 80
Tyr	Lys	Leu	Gln	Phe 85	His	Asn	Val	Lys	Pro 90	Glu	Cys	Leu	Glu	Ala 95	Tyr
Asn	Lys	Ile	Cys 100	Gln	Glu	Val	Leu	Pro 105	Lys	Ile	His	Glu	Asp 110	Lys	His
Tyr	Pro	Cys 115	Thr	Leu	Val	Gly	Thr 120	Trp	Asn	Thr	Trp	Tyr 125	Gly	Glu	Gln
Asp	Gln 130	Ala	Val	His	Leu	Trp 135	Arg	Tyr	Glu	Gly	Gly 140	Tyr	Pro	A↓a	Leu
Thr 145	Glu	Val	Met	Asn	Lys 150	Leu	Arg	Glu	Asn	Lys 155	Glu	Phe	Leu	Glu	Phe 160
Arg	Lys	Ala	Arg	Ser 165	Asp	Met	Leu	Leu	Ser 170	Arg	Lys	Asn	Gln	Leu 175	Leu
Leu	Glu	Phe	Ser 180	Phe	Trp	Asn	Glu	Pro 185	Val	Pro	Arg	Ser	Gly 190	Pro	Asn
Ile	Tyr	Glu 195	Leu	Arg	Ser	Tyr	Gln 200	Leu	Arg	Pro	Gly	Thr 205	Met	Ile	Glu
Trp	Gly 210	Asn	Tyr	Trp	Ala	Arg 215	Ala	Ile	Arg	Phe	Arg 220	Gln	Asp	Gly	Asn
Glu 225	Ala	Val	Gly	Gly	Phe 230	Phe	Ser	Gln	Ile	Gly 235	Gln	Leu	Tyr	Met	Val 240
His	His	Leu	Trp	Ala 245	Tyr	Arg	Asp	Leu	Gln 250	Thr	Arg	Glu	Asp	Ile 255	Arg
Asn	Ala	Ala	Trp 260	His	Lys	His	Gly	Trp 265	Glu	Glu	Leu	Val	Tyr 270	Tyr	Thr
Val	Pro	Leu 275	Ile	Gln	Glu	Met	Glu 280	Ser	Arg	Ile	Met	Ile 285	Pro	Leu	Lys
Thr	Ser	Pro	Len	Gln											

Thr Ser Pro Leu Gln 290

<210> 307

<211> 208

<212> PRT

<213> Homo sapiens

<400> 307

Ala His Arg Asn Ser Thr Ala Leu Leu Glu Gly Arg Gly Leu Gln Trp 1 5 10 15





Asp	His	Asp	Ser 20	Gly	Phe	His	Phe	Leu 25	Asn	Lys	Trp	Asn	Cys 30	Val	Ile
Tyr	Gln	Phe 35	Leu	Pro	Ala	Met	Phe 40	Val	Pro	Cys	Cys	Ile 45	Pro	Tyr	Val
Phe	Pro 50	Gly	Leu	Lys	Ile	Pro 55	Val	Ser	Pro	Lys	Met 60	Val	His	His	Val
Gln 65	Leu	Pro	Asn	Leu	Arg 70	Glu	Glu	Ser	Ser	Asp 75	Gly	Phe	Val	Thr	Ile 80
Leu	Ser	Glu	Ala	Asp 85	Cys	Thr	Ser	Pro	Val 90	Ile	Ala	Pro	Phe	Asn 95	His
Gly	Ser	Trp	Ser 100	Glu	Leu	Val	Arg	Pro 105	Glu	Phe	Ile	Tyr	Ile 110	Arg	Ser
Gly	Ser	Trp 115	His	Arg	Leu	Ile	Pro 120	Glu	Thr	Glu	Leu	Gln 125	Gln	Glu	Leu
Ile	Leu 130	Pro	Gly	Glu	Lys	His 135	Val	Thr	Ser	Cys	Leu 140	Thr	Lys	Phe	Gln
Lys 145	Phe	Leu	Ile	Phe	Ser 150	Glu	Phe	Ile	His	Asp 155	Phe	Cys	Glu	Gly	Trp 160
Ile	Ala	Ser	Phe	Ile 165	Pro	Pro	Glu	Val	Asp 170	Ser	Leu	Val	Leu	Leu 175	Ala
Ile	Pro	Arg	Val 180	Pro	Ser	Pro	His	Gln 185	Ser	Thr	Arg	Val	Val 190	Phe	Ile
Phe	Val	Asn 195	Leu	Trp	Gln	His	Leu 200	Leu	Thr	Asn	Phe	Val 205	Val	Cys	Phe